Military Intelligence

EASTERN EUROPE

An Area in Crisis

Features

Military Intelligence

From the Home of Intelligence

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Departments

Staff

COVER: This issue's cover depicts the hardship brought to Eastern Europe by Soviet dominance of that region. Design by Thomas Daley.

from the Commander

Maj. Gen. Julius Parker Jr.

The National Training Center at Fort Irwin, Calif., and the current program to develop the Combat Training Center Program from corps/division to platoon, attests to the Army's commitment to provide high quality, realistic training to the combat arms. The same rationale, though different in application, holds true for Military Intelligence. A battle commander who cannot fix the enemy strength and distribution, cannot execute the battle effectively and successfully.

In 1986, the Intelligence Center and School chartered an organization known as the Intelligence Training and Evaluation System Program Management Office (ITES PMO). Its mission is to study the problem of realistic MI training and to investigate potential solutions that would employ emerging technology to overcome traditionally weak areas in training, development and evaluation of intelligence products. The ITES PMO observed that distinct benefits accrued to the combat arms as a result of their participation at NTC, but concluded that in order for commensurate benefits to accrue to participating MI elements, a format dictating the need for realistic intelligence play and an IEW support component throughout the exercise would be required.

Attendant to the realistic intelligence requirements are two distinct challenges: replication of an accurate threat and the synchronization of the CPX's scenario with the FTX's intelligence. As the capability of the NTC continues to grow, we see an ever-increasing role for the "intelligence player," and it is incumbent on us to create realistic training in concert with the exercise activities of the maneuver forces.

For too long, particularly on the SIGINT side of the house, we have trusted strategic experience in field stations to condition our 98 career management field (CMF) soldiers to perform their jobs. The system worked to a degree until the advent of CEWI and the close, continuous tactical support required by that concept. It is our intent to provide the Army with training capability for intelligence forces that is similar to the realistic scenario portrayed at NTC. This capability is called the Training Evaluation Complex (TEC). It will provide a training opportunity and an evaluation mechanism for intelligence support of the combined arms operation, the synchronization of operations, and the command and control of the battlefield.

TEC will provide a way to train our 98 CMF soldiers against pseudo-live targets in the near term and will provide ways to train soldiers in our other intelligence disciplines in the out years. Moreover, TEC provides the most promising possibility for integrating realistic CPX/FTX play of the combat arms. The program enables an operator, in an FTX environment, to collect against a simulated threat and report on the collection in accordance with MI doctrine. TEC will allow a microcomputer, the Target Signature Array (TSA), on board a collection system to provide targets according to the scenario. The TSA can be altered to reflect changes in the tactical environment. Because the TSA resides within a tactical shelter, the security problem can be minimized.

The TEC Control Center (TCC), located with the CPX/FTX computer driver, views the tactical situation and activates the targets that reside in the data bases within each of the TSAs. Transmitted messages are unclassified, because of the configuration of the data bases at both locations. With the interaction of the TCC, the TSA and the unclassified communications link between them, TEC provides the operator with the most realistic threat representation one could expect outside a live environment. We will be able, in a nondestructive environment, to fully test our capabilities at all combat echelons, from platoon to corps.

Certainly, TEC provides us a vehicle by which we can train our intelligence soldiers worldwide. Because the system cleverly captures the latest in technology and integrates simulation with training and evaluation, we will tremendously increase our potential to train ourselves and support the maneuver forces. By operating a CEWI unit against a realistic threat environment, we can determine the extent to which our targeting efforts are successful, the level of training effectiveness, and the appropriateness of our doctrinal guidance.

TEC is not a panacea for all the unknowns that face the military intelligence community, but it does provide a logical and workable solution to many of the problems. Moreover, the concept development allows for near-immediate application. The TSAs for each collector in a battalion can be developed individually, as funding becomes available within the MI budget, and can subsequently be employed in a training role. Granted, in this mode of operations, all the capabilities and responsiveness of TEC will not be available, but a valuable training tool *will* be available.

For a more in-depth analysis of the TEC Program, I refer you to the article contained in this issue of our professional bulletin, which discusses the program at greater length. ***Toujours en avant*—Always Out Front!**

from the CSM

CSM Robert H. Retter

Prior to the 1987 skill qualification testing cycle, rumors circulated that the test would be dropped. This space is devoted to dispelling those rumors and providing updated information regarding significant changes in the acquisition of soldiers' training publications.

Training publications have been issued directly to units under the "push" system of distribution. Units received soldiers' manuals, trainers' guides and job books automatically. However, this system will soon disappear to make way for soldiers' training publications designed for the career management field (CMF) 96. The distribution of publications for CMF 98 and 33 will not change.

The new DA form 12 series enables all users to obtain soldiers' manuals, trainers' guides and job books, as well as military qualification standards manuals. Units must identify their enlisted and officer requirements under initial pinpoint distribution procedures. The Baltimore Publication Center started taking initial distribution orders for publications the first of this year.

Units which have not filed subscription forms, must do so immediately to prevent delays in receiving revised publications. They must also identify the type and quantity of soldiers' training publications needed to support their enlisted MOS and officer branch specialty needs.

Units with existing accounts with the Baltimore Publication Center should update accounts by submitting the new forms. Those units which receive publications through a higher headquarters account must update the supporting account to reflect requirements. If a supporting account does not exist, one must be established. Refer to DA circular 310-85-4, revision of the DA form 12 series. This circular, along with DA pamphlet 310-10, *STARPUBS User Guide*, contains the guidelines to establish an account and begin distribution. Failure to establish an account or update existing accounts using DA forms for soldiers' training publications has severe consequences: units will no longer receive the publications.

The revised publications are written as essential one-step study guides for the SQT. The 97B soldiers' manual will be the first available under the "pull" system. Each SQT undergoes a series of reviews beginning with the subject matter expert qualified in the MOS and assigned to the SQT team from an academic department. An additional review is conducted with the subject matter expert, a project manager and an education specialist. In this stage of development,

grammatical errors are identified and changes are made and validated by a subject matter expert.

Subject matter experts are required to validate each question written by the SQT team. This procedure ensures that only one answer exists for each question and that the question is doctrinally accurate. Again, errors are identified and corrections are made. Another review, called a field validation, is conducted. This involves randomly selecting and visiting field units where there is a high concentration of appropriate MOS. Soldiers are administered eight to ten questions per task, four of which will appear on the final SQT. Validity of the questions and times required to take the test are determined.

Results of the field validation are programed into a computer which determines which questions should be used on the test. Once those questions are identified the final test is written and sent to TRADOC for printing and distribution to the various test site officers for administration.

Recommendations were made in 1986 to either modify or eliminate the current SQT system due to the high cost of development and administration. Possible alternatives for testing were presented to the major field commanders who remained in support of the current SQT. Although a final decision has not been made by the Department of the Army, apparently the SQT of today will survive.

We, at the Intelligence Center and School have the responsibility to develop an SQT for those MOS for which we are proponent. The SQT is an important tool that will show commanders where training weaknesses exist and to determine eligibility for military schooling and promotion.

Behind the Lines

The Army is taking major strides to automate certain facets of training for war and to develop technologically advanced systems and equipment. For the military intelligence professional, high-technology equipment equates to increased ability and less time required to process critical battlefield information for the commander. Maj. Gen. Parker has stated: "The military intelligence professional must be capable of performing comfortably within the confines of the technical revolution that surrounds us." Regardless of conflict intensity, the MI soldier of today and tomorrow must be adequately trained to provide intelligence support based on exploitation of technologically evolving threat forces.

This issue of the professional bulletin provides the intelligence community with enlightening information concerning threat forces, particularly from a historical perspective. Combating these forces involves a working knowledge and understanding of the threat environment, from platoon to echelons above corps.

To enhance our knowledge and understanding of that environment, program managers and force development planners are concerning themselves with state-of-the-art equipment production and high-technology training initiatives. The Digital Topographic Support System, as presented by Col. Laubscher, is one such initiative that will improve the commander's ability to see the battlefield. This system will greatly enhance the terrain analysis process. The Training Evaluation Complex, which is addressed by Lt. Col. Burch and Lt. Col. Raymond, will potentially provide MI soldiers with a high-technology training environment that will ultimately increase our ability to perform in a highly stressful, well simulated threat environment.

While automated training aids and high-technology systems promise to tremendously increase our collection and analysis capabilities, the MI professional must not lose sight of the fact that systems and training initiatives are designed to *assist*— not replace. Technological advances will indeed expedite the processing and dissemination of intelligence, but the grasping of the technical knowledge that enables an intelligence professional to conduct accurate, critical analysis will always be a human function. This is particularly true in a low intensity conflict scenario, in which doctrine and the practical application thereof by army-wide units is still emerging. The possibility of nuclear proliferation in a high intensity conflict involving technologically advanced forces demands close scrutiny of the effectiveness of many automated systems. A presumptuous force dependent on automation to win wars for them could be heading for disaster.

As we enter into this revolutionary stage of development in which manpower-intensive systems will be decreasing, it is incumbent upon us to rely first and foremost on developing our abilities to fully exploit threat forces. This will ultimately result from extensive professional development, training and education to become completely computer literate and doctrinally literate. The ability to apply emerging doctrine in a high-technology environment while maintaining the proper perspective concerning the use of computerized training aids and equipment is a skill we all need to further develop.

William A. Danielly

Editor

Dear Editor:

Two or so years ago, Capt. Ralph Peters graced the pages of your publication with a fearful, urgent warning. The Army's intelligence analysts, he feared, were failing to internalize their skills. In predicting the enemy's courses of action, they were coming to rely too heavily on doctrinal matrices and too lightly on their own thought and hard-won experience. Our analysts' work, Peters concluded fearfully, was becoming too lock-step, and this spelled doom for us and the AirLand Battle.

Our Army's problem two years ago was not, as Peters put it then, that our analysts were too doctrinaire. The problem was that not enough of our analysts had yet learned the doctrine well enough to get beyond it. Back then, with a real problem of people and knowledge afoot, Peters opted to conjure a red herring. Too clever by half, Military Intelligence pursued it.

In his piece, "The Dangerous Romance: The U. S. Army's Fascination With The Wehrmacht" (Military Intelligence, October-December 1986), Peters' fearful, urgent point is to remind us that, as soldiers, we're obliged to read military history with a critical eye. And this, he says he knows, is something too few of us have been doing — with respect to the Germans, the French, the Italians and Vietnamese, et. al., but mostly the Germans — at least for as long as he can remember. We have failed and continue to fail where a question of greater moral responsibility is concerned.

And now again, through his forgetfulness and fearful posturing, Peters has entered our offices and professional lives with the solution he says we all need to a problem we were either too faint-hearted or too busy to articulate. In "Dangerous Romance," Peters leads the MI professional to recognize himself for what he is: his morally remiss own worst enemy.

Formula writing like this (posits a solution, then creates a problem) almost always requires some concession to the impertinent. As certainly as I do not cringe at the thought, right or wrong, that "the Rommel-Guderian type would not have appealed to Goethe," I do not begrudge the author's showing me the error of my ways.

I can stomach false controversy, and it does not amaze or much disturb me that Peters feels justified in slurring the accomplishments of better than three nations' armies over better than two centuries' time. The author has gotten his genres happily mixed, but I am human (i.e. fallible) enough to forgive him the comic juxtaposing of "heroic" opposite "systemic," even when the discussion is supposed to be the tradition of the German military and not the tradition of the German stage.

Peters' slick responses to the Army's woes, material or otherwise, are not what ultimately confound me. In the privacy of his own shower, I submit, Peters is entitled to respond in whatever way he chooses.

What I fear — and I fear this most urgently — is that someone else, some stranger, will read this trumpery and take the MI community for something other than the disciplined professionals we usually are.

Capt. Robert B. Curtis
111th MI Bde (Training)
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Dear Editor:

Typically, I find the articles in Military Intelligence rewarding. However, the article by Michael W. Johnson, "Gorbachev's Detente: the KGB Connection" (October-December 1986) was so bizarre, from its tortured logic to its dark warnings of blood purges and Soviet adventurism, that I fail to understand how it found its way into the professional bulletin and hope you will not leave your readers with its skewed perspective.

Leaving aside the frequently purple prose and the gratuitous slap at the "apologists" writing in Foreign Affairs, there is one general, and several specific comments that should be made. Johnson clearly wants to prove that the KGB runs the Soviet Union. As a result, in his "analysis" he bundles together individuals associated with the military, the Ministry of Foreign Affairs, various regional party offices, a defense industrial ministry, and the KGB into a hodge-podge that, he argues, proves KGB control. When someone cannot be demonstrated as having been KGB, he characterizes them as "KGB-types."

This might be reasonable if he were making the case that the various national security organs run the Soviet Union, as has been suggested. Instead, he lumps these very different, at times competing, organizations into the KGB.

While reasonable people frequently disagree about the Soviet Union, there generally is a desire to rely on factual data. Too frequently, Johnson relies on a collection of unsubstantiated claims, errors, and tortured logic. A few examples should be sufficient.

Without evidence, he claims that Suslov had control over Stalin's personal files on Party members, and that he used them to maintain his position in power. He then implies that Suslov was linked with Andropov who, in turn, was linked with Gorbachev. He then claims that Gorbachev slipped "intelligence information" to Andropov for almost 20 years. Somehow, this makes Gorbachev a Stalinist. Why does he not provide references?

Johnson doesn't explain how Andropov's appointment as KGB chief in 1967 made

way for Gorbachev's promotion in Stavropol, an area in which the latter had been working since at least 1956. Gorbachev's career appears completely natural, moving from Komsomol in Stavropol to various posts in the city's committee, and eventually into the region's leadership.

The most flagrant examples, however, are his efforts to identify most of the Soviet leadership as KGB.

Vorotnikov, tarred with the brush of "KBG-type" by Johnson because he worked in the Soviet embassy in Cuba, was actually exiled there by Brezhnev. Neither his previous career nor his unsought tenure in Havana qualify him as a KGB officer. Solomentsev was never in charge of a ministry "responsible for nuclear weapons production," nor did he oversee defense industry for the Party, a job held by D.F. Ustinov. To claim that Solomentsev is "probably a KGB member" based on a string of inaccurate claims is the worst kind of "analysis," just as claiming that "it was unusual for a KGB member to sit on the Politburo" ignores the fact that Andropov was a candidate member from 1967 and a full member from 1973.

Ligachev, like Vorotnikov, is characterized as a "KGB-type," in part because he has a reputation as a "strict disciplinarian." Ryzhkov, in one of the most exaggerated assertions in a piece chock-full of them, is apparently involved in "KGB/military affairs" because he worked in Sverdlovsk (a city with more than one million inhabitants)! While Sverdlovsk is a key center for defense production and Uralmash (which Ryzhkov directed) does produce armaments (in addition to being one of the largest civilian plants in the country), it stretches credulity to suggest that the technocrat Ryzhkov is thus a KGB official or even a "KGB-type." Johnson is correct in noting that Aliyev was a KGB official, but most analysts credit his promotion to his success in rooting out corrupt republics in the USSR, not "smashing opposition" to Soviet rule there.

Murakhovskiy (in charge of agriculture and with an agricultural background) is somehow transformed by Johnson into a "KGB associate" of Gorbachev's, without evidence, as is former Minister of Communications Nikolai Talyzin. Johnson's suggestion that neither have any expertise in economics is to miss the point completely: they were both economic managers, giving them long experience in key aspects of Soviet-style administration.

There is a case to be made that Gorbachev is bringing in his own group of like-minded officials. The case can even be made that there is a difficult choice ahead between retrenching and liberalization,

EASTERN EUROPE:
An Area In Crisis

After 40 years of Soviet domination under communist regimes, and in spite of four decades of relative international peace, Eastern Europe is still confronted with grave economic and political problems, instability and an uncertain future.

by **Nicholas Dima**

Post-war history in the area reveals an interesting pattern of events with cyclical challenges to both the local communist regimes and Soviet hegemony. Examination of the current situation and projection of its future trend leads to the hypothesis that other confrontations are apparently inevitable in Eastern Europe. Remembering that both world wars started in Eastern Europe and knowing that Moscow is presently implementing unusual reforms, one can become legitimately apprehensive about what other surprises this area could bring to the rest of the world.

Eastern Europe is important to the West and to the United States because of its geo-strategic location: A possible conflict in this area could trigger an international war. Moreover, for the first time in history, this natural bridge between the East and West is now exclusively under Soviet control and can be easily used for an attack against the NATO allies. With the Soviet Union and communism perceived as the chief enemies of the Western world, a better understanding of Eastern Europe and its evolution may provide the reader with a clearer view of communism and its future trend, especially in Europe.

History and Geography

Eastern Europe occupies an area of approximately 400,000 square miles which stretches from the Baltic to the Mediterranean Seas and is located between Russia and Germany. It repre-

sents a quarter of Europe's land mass and is inhabited by 140 million people. It is a land of vast geographic variety, as well as great ethnic and cultural diversity. In spite of its geographic differences, Eastern Europe is an accessible crossroad between the Russian/Asian great plains and Western Europe. Consequently, for most of its history, Eastern Europe represented an "expandable" area and a buffer zone for various foreign powers. The latest direct contenders over this area were the Ottoman empire, whose power vanished at the end of World War I, Germany, whose power vanished at the end of World War II, and the Soviet Union, who still dominates the region. In contrast to the extent of Czarist Russian control, the Soviet Union expanded its control over the entire region.

Unending foreign domination has delayed the social, economic and political maturation of the nations in the area and has caused intrigue, animosity and prolonged instability. In spite of their long history, for example, Eastern Europeans have experienced a recent national revival. Nationalism and aspirations to independence are 19th and 20th century phenomena, and they are overwhelmingly the result of Western influences. As a direct consequence, all nations in the region have developed affinities and admiration for Western values and institutions. In addition, Catholic and Protestant churches have provided deep bonds of unity with the West. Essentially, very little, if anything, of value came from the East, and nations such as Poland, Romania and Hungary have great reservations and resentment for anything of Russian origination.

As modern entities, most Eastern European nation-states came into being at the end of World War I. At the Paris Peace Conference, the United States advocated the principle of self-determination and thereafter, politically defended the international rights of the Eastern European states. Since that time, America has commanded admiration and respect in the entire region probably unequaled anywhere else in the world. For the average Eastern European citizen, America has since remained synonymous with freedom, justice and democracy.

Unfortunately, during the confusion of the inter-war period, the United States pursued a policy of isolationism, and Eastern Europe was threatened once more by two reemerging ene-

"Unending foreign domination has delayed the social, economic and political maturation of the nations in the area."

mies: the Soviet Union to the east and Germany to the west. The area fell prey again to foreign domination, partitions and annexations, and choosing between the two sides was very difficult and risky even when the option did exist.

At the end of World War II, the entire region was occupied by Soviet troops and in less than three years, Stalin placed in every Eastern European country a submissive pro-Soviet, communist government. A disheartening epoch followed, marked by opposition, clashes, uprisings and repeated Soviet interventions. It has been estimated that at the end of the war, ruthless Soviet exploitation extracted from Eastern Europe as much as the United States provided Western Europe for reconstruction through the Marshall Plan.[1] However, if, in the immediate post-war years, Eastern Europe was an economic asset for the war-ravaged Soviet Union, it has recently become an economic liability. In order to keep the region an exclusive Soviet zone, Moscow must supply it with energy and raw materials and must buy its noncompetitive industrial goods. Eastern Europe has become a significant economic burden for Moscow, a high price to be paid for a political domination still deeply resented by Eastern European citizens. One must wonder how long this situation can last or if there will be further challenges to both local regimes and Moscow's domination of the region.

40 Years of Communism

As an ideology or a belief system, communism is alien to Eastern Europe. It was imposed by brute force of the Soviet Army and the KGB. While the almost nonexistent Communist Party of Romania numbered less than 1,000 members at the end of the war, the stronger Polish Communist Party numbered only 20,000, still a meaningless amount compared to other Polish political parties.[2] Nevertheless, by 1948, due to the Soviet repressive apparatus and a growing number of opportunists, the

communists controlled all Eastern Europe. While the Soviet-backed communists worked their way to power, average Eastern European citizens concentrated on rebuilding their lives and placed their hopes for changing the course of their destinies with the West. By and large, Eastern Europeans refused to believe that their fate was sealed and initially viewed the new regimes as a short interlude. After accumulating enough power, however, the new regimes closed down the borders, outlawed the possession of guns and began to crush all opposition. To retain power in the face of widespread opposition, the new governments relied exclusively on the Soviet Union and were completely submissive to Moscow. The sole exception was Yugoslavia, which broke with Moscow in 1948, and ever since has remained a communist state outside Soviet control.

The first decade of Soviet domination in Eastern Europe was marked by strong anti-communist opposition, violence and brutal repression. There were mass arrests, deportations, executions and murders. It was a ruthless struggle for power at the top of the new communist governments and a warlike state between the governmental machines and the general population. Western radio broadcasts encouraged people to resist and refugees returned as agents to organize resistance and uprisings. In 1953, for example, former Secretary of State John Foster Dulles revealed publicly that "liberating Eastern Europe" and "rolling back" the iron curtain were included in the goals of the Eisenhower administration.[3] False hopes and struggle

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abounded while the Stalinist regimes of the time resorted to even more brutal measures to smash the opposition.

The open struggle against communism in Eastern Europe culminated with the 1956 Hungarian Revolution. During the same year there were protests throughout the entire region and violent riots in Poland. Hungarians, as

well as most of the other Eastern Europeans, expected Western military intervention to abolish Soviet domination of their countries and to help rid them of communism. Western inaction deeply shocked those faithful Eastern Europeans and undermined their unfailing trust in America.

The Hungarian uprising marked the end of the defiant anti-communist generation of Eastern Europeans and shattered their dream of a quick end to Marxist-Leninist rule. There were several lessons to be learned from the tragic events of 1956. The revolution proved how fragile and insecure the communist system of Hungary was. Yet, it also showed that the Hungarians fought against both the local communists and against Soviet hegemony. It demonstrated that once a country is taken over by communism, it cannot abolish it without foreign assistance, as long as communism is backed and guaranteed by Soviet military might. Notably, the revolution did not occur during the depth of the Stalinist terror of the early 1950s because, as advocated by sociologists, populations deprived of any rights are probably incapable of organizing themselves and fighting.[4] The Hungarian revolution occurred at the beginning of the post-Stalinist liberalization of the Eastern Bloc. This "destalinization" did not prevent Khrushchev from his brutal intervention. Once in power, the communists would not yield or share political control without bloody confrontations.

The year 1956 marked a watershed in Eastern Europe. It ended the first stage and opened the second stage of the ongoing Soviet relations with its Bloc countries. The violent events compelled Eastern European governments and people to look for a *modus vivendi* with Marxism-Leninism. It opened a period of reforms and accommodations, with various governments experimenting with reforms and seeking legitimacy while the populations tried to adjust to the

limits of the new reality. At the same time, more and more people, among them many intellectuals, joined the communist parties of their countries, hoping to share in power and affect changes from within the system.

World communism was also affected during the late 1950s by the increasing disagreements between the Soviet Union and China. The Sino-Soviet split forced Moscow to relax its rigid control of Eastern Europe. With more room for maneuvering, Eastern European governments intensified their quest for identity and political expression. Gradually, individual countries began to search for their own path of development and the area entered the new decade with higher expectations. The sole exception this time was Albania, which adhered to Stalinism.

The 1960s were characterized by growth for the Eastern Bloc nations. Pursuing a policy of industrialization, Eastern European countries were able to absorb the rural population surplus, to offer universal employment and to bring about an improved standard of living. Having learned the limits of tolerance, the new generation avoided direct clashes with the authorities and placed their hopes in gradual reformation of the system. Political prisoners were freed, cultural expression was encouraged, and contacts with the West intensified. Not unlike a return to normalcy, the area began to breathe with new vitality. Apparently and at last, Eastern Europe was moving in the right direction. Notably, the generation which was capable of making the system temporarily work was still a generation educated and trained within the system of values of the old regimes.

Confronted with a declining standard of living and lost privileges, people will oppose it and fight, as they did in Eastern Europe during the late 1940s and early 1950s. This was again the case of Eastern Europe during the reform and accommodation years of

the 1960s. The genuine desire of the populace for more freedom began to endanger both the power of the regimes in various countries and Soviet domination of the region. Students demanded drastic reforms in Poland. In Czechoslovakia, the government advanced such reforms, threatening to give communism a human face and transform the country into a pluralistic society. Moscow would not tolerate such "heresies," and the Soviet tanks rolled again in Eastern Europe. The population did not fight openly, and there was no bloodshed as in 1956 Hungary and Poland. There was, however, bitter popular resentment of the Soviet invasion. By now, Eastern Europeans no longer expected Western military intervention to free them from communism, yet they were embittered by the complacency of the West.

After 12 years of working for a new accommodation with their own regimes, the generation of "reformists" and "legitimists" came to an end. The lesson to be learned was confusing. If they revolted and fought against the regime they were brutally crushed. If they joined the system and tried to change it from within, they were stopped. Meanwhile, the more comfortable 1960s came to an end with the Polish riots of 1970.

The 1970s brought fundamental change for Eastern Europe. Borrowing heavily from the West, Poland, Romania and Yugoslavia found themselves deeply indebted and unable to repay those debts. For the first time, the Soviet Union became an importer of grain and other foodstuff. In order to keep Eastern Europe afloat, it also had to intensify its supply of energy resources to the Bloc. After only 30 years of communist power, the largely self-sufficient and developing Eastern European countries became industrially more developed, but more dependent than ever on Western capital and Soviet raw materials and markets.

While standards of living began to deteriorate, Eastern European regimes resorted increasingly to police repression to maintain their control and power. Gradually, a new phenomenon of political dissent was born, and a generation of "dissidents" replaced the generation which attempted to change the regime peacefully by joining the communist parties. This generation claimed to be socialistic and only demanded that their governments respect the law. After the signing of the Helsinki Accords in

1975, the dissidents began to focus on the provisions of the accords by asking their governments to respect their own agreements.[5]

During the late 1970s, there were human rights groups throughout Eastern Europe and increasing protests against abuses and repression. In Romania in August 1977, 30,000 miners went on strike.[6] This time the protestors did not demand more freedom, as had the movements of the late 1960s. They demanded a halt to the obvious deteriorating standard of living and growing abuses. However, it was Poland that was more determined than ever to shake its communist yoke.

In 1980, following a series of strikes and massive protests, the Polish people forced the government to accept the formation of "Solidarity," the first free union to be legally recognized in a communist country. Since the Soviet invasion of Czechoslovakia, Eastern Europe had been searching for a solution; the Poles had finally found one. They hoped for the communist regime to acquiesce and share power with the people. The Soviets were confronted for the first time with a new situation and an impossible dilemma. They had

already invaded Afghanistan. They questioned their ability to stretch any further without great risks. Moreover, if they invaded Poland, they were faced with securing a communist government, keeping the population in check, inheriting over 20 billion dollars in debts, and rebuilding the sagging Polish economy. The dilemma was never solved; it was only temporarily arrested.

From a socio-political point of view, when countries such as Poland and Romania reach a terminal crisis, the regime collapses or the country is faced with chaos or civil war.[7] However, the Soviet-backed communist countries do not allow for any loss of power. The military took over in Poland and demonstrated that the last resort of communism is brute force. Gen. Jaruzelski outlawed Solidarity, and resorted to martial law and stringent economic measures to keep Poland under control. From a Soviet perspective, this less than ideal solution was better than either losing or invading Poland. Far from finding the peace between the strongly nationalistic and Catholic Poles and their oppressors, it became an uneasy armistice.

The troubles which marred Eastern

Europe during the 1970s, and especially Poland and Romania, were not addressed with badly needed reforms but with brutal force that only covered the symptoms and postponed the explosion. Strains and crises from 1968 to 1980 led to desperation in Eastern Europe and showed its population the depth of their predicament. The whole world watched the Polish events with the greatest interest and sympathy, while the West once more did nothing to alleviate the situation. While the Eastern Europeans looked to the West for assistance and encouragement, they became more and more cynical with every dramatic uprising and unfulfilled expectation. The communist regimes and their Soviet backers were there to

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The imposition of communism throughout Eastern Europe has brought financial hardship on all of the countries in that region.

Figure 1

ACTUAL CURVE ------- EXPECTATIONS/ASPIRATIONS ⭐ OPEN STRUGGLE
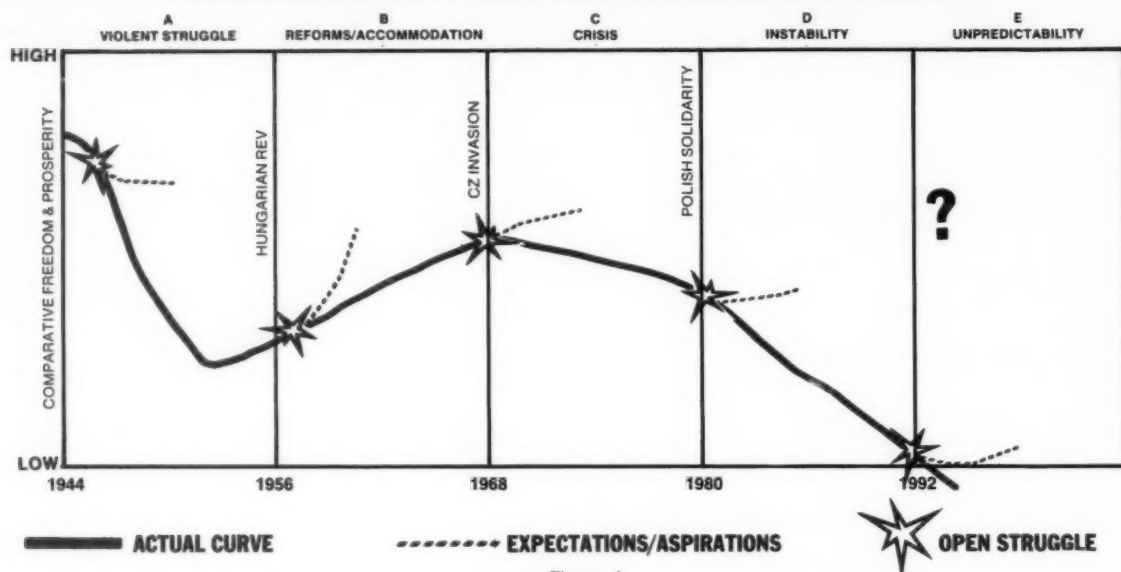
stay, but they could neither satisfy the population nor stop political dissension in the area.

Since 1980 Eastern Europe has entered a period of instability that can only be solved through systemic reforms, and the longer such reforms are delayed the more difficult it will be to avoid an ultimate disaster. This is the case in Romania.

An Emerging Model of Communist Evolution

If one charts the most dramatic events in Eastern Europe over the past 40 years, a striking pattern can be observed. Every 12 years after the 1944 Soviet occupation, some Eastern European country has attempted to liberate itself from Soviet domination. The chief attempts were made by Hungary in 1956, by Czechoslovakia in 1968 and by Poland in 1980. The pattern appears to repeat itself in Poland every 10 to 12 years: bloody riots in 1956, student protests in 1968 and bloody strikes in 1970, and the general standstill of the nation in 1980. Apparently, these events separate four stages (see figure 1) and seem to represent four generations of people with different values, aspirations, ideals and behavior.

The first two stages of this model can also be grouped together and are actually linked by two close generations born and shaped under the old capital-

ist regimes. The third period represents a generation in transition, struggling between two incompatible sets of values, and the fourth period, a generation born and shaped under the communist system. Accordingly, based upon the Eastern European experience, the four stages of communist evolution appear to be an initial period of violent struggle for power, a period of recess characterized by limited reforms and realistic accommodation, a critical period of transition toward total dictatorship or an uncertain future, and a disastrous failure of the regime coupled with extensive police measures.

Given human nature, which continually pursues freedom and better living conditions, and given the very nature of communism which is a coercive system of control over collective masses, there will always be a conflict between human aspirations and Marxist ideology. Consequently, it can be hypothesized that the three stages of communism identified in Eastern Europe, with the fourth one in the making, could be found with certain local particularities in any country taken over by a communist regime As an alien ideology imposed by force from outside or from within by a minority group, communism will always be met with widespread opposition. At the beginning, the struggle is naturally violent, while later it assumes more passive forms.

After the elimination of the anticommunist fighters and when those who still remember the better past leave the scene, communism appears to enter a period of crisis with no safe direction or easy course to take. Most of Eastern Europe and even the Soviet Union are now in the period of crisis, and a few countries are approaching a dead end.

What are the alternatives of a communist country in crisis? The only communist country in existence long enough to offer some explanation is the Soviet Union. Apparently, the USSR itself went through three stages: violent struggle for power during the years following the Bolshevik Revolution, a period of renewal and limited reforms during Lenin's New Economic Policy of the 1920s, and the very critical years under Stalin that followed.[6] World War II was disastrous for the Soviet Union and only international circumstances saved the system. The war itself profoundly altered the course of communism and prompted a repetition of the cycle. The four-part phase entailed a new struggle for power, particularly in the area occupied by enemy troops, Stalinist repression against the collaborators, liberalization under Khrushchev and crisis under Brezhnev.

Examining the Soviet alternatives in the 1970s, which appear to be the alternatives of any communist country in

crisis, the renown political scientist Z. Brzezinski concluded that the USSR has only five major options. The first option is termed *oligarchic petrifaction*, which implies perpetuating the situation for as long as possible. Secondly is *pluralistic evolution*, which implies the very transformation of the party and acceptance of dissent. The third option is *technological adaptation*, involving promotion of educated technocrats into the political system, technological progress and possible nationalism. The fourth choice is *militant fundamentalism*, implying a coercive return to conservative Marxism, rigid bureaucracy and most likely socio-economic backwardness. The final option is *political disintegration*, a decaying stage of communism with aggressive threats to the regime.[9]

Currently, the Soviet leadership is attempting to institute a new, radical system of reform and openness (*glasnost*). The Soviet Union is the sole country in the Bloc able to direct change without fear of outside intervention. Czechoslovakia and Poland tried unsuccessfully to create a pluralistic evolution. East Germany has successfully implemented a policy of technological adaptation. Albania applied a policy of militant fundamentalism for many years,

"The Soviet Union is the sole country in the Bloc able to direct change without fear of outside intervention."

while Romania returned to the same option, only to approach a phase of political disintegration.

Given the existing communist experience, it appears that upon entering the crisis stage, a country would have only a few options. Ossified party oligarchs will try to arrest the situation, while more educated progressive elements in the system may press for reforms. Indecision may lead to a national standstill, as in Poland, and a strong party control may push the country into an abysmal pit.

The illegal arrest and abominable murder of the Rev. J. Popieluszko, as well as the public trial of the secret police officers who murdered him, only illustrate the dilemma of a communist country reaching the end of its period of crisis.[10] In Romania, a case in point worth studying in the current circumstances, the situation is almost out of control. Food has disappeared, home heating has been officially reduced to

unbearable temperatures, electrical supply is erratic, dissenters are murdered and the secret police are omnipresent. The economy continues to function only as a result of Bloc arrangements. The social impact is incredulous. The divorce rate has skyrocketed and is now one of the highest in the world. Birth rates dropped dramatically, forcing the government to outlaw abortions and contraceptives. Suicide has multiplied many fold in a country of formerly pastoral and content people. It now has the highest suicide rate in the world. In 1979, when Romania last reported its suicide statistics and before the current disaster, there were 66 suicides per 100,000 people. This represents almost twice as many as Hungary (second-highest), followed by East Germany.[11] Without Soviet backing, the communist regime of Romania would have been toppled by dissenting factions within the system itself. Eventually, drastic reforms will be necessary to avoid a total collapse. Furthermore, a systemic reform of the communist political system offers no guarantee that a balance between the regime that wants to retain power at any cost and a population which wants more freedom and improved living conditions will be found. In addition,

STAGES OF COMMUNISM
(EASTERN EUROPEAN EXPERIENCE)
A FREEDOM/PROSPERITY CURVE AS OPPOSED TO RESTRICTIONS/SHORTAGES CURVE
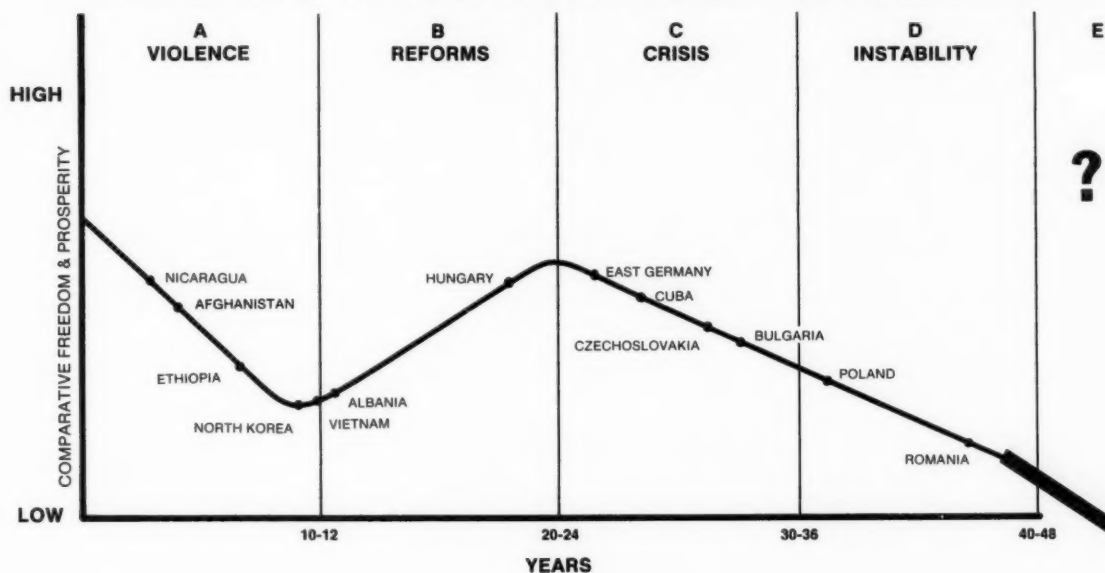

Figure 2

current Soviet reform policy will affect Eastern Europe, just as any events in Eastern Europe will ultimately impact upon the Soviet Union.

The current trend of communism in Eastern Europe is uncertain, diverging to a certain degree and alarming to another degree. Although the basic tenets of Marxism have been applied to all countries in the area, one can also distinguish traits unique to each country and culture. Strikingly peculiar is the foolishness of such leaders as Ceausescu of Romania, who rushed to build a utopian "Marxist" society ahead of others, or the wisdom of leaders as Kadar of Hungary, who realized the inapplicability of utopian Marxism and avoided the disaster. Otherwise, it may be hypothesized that this utopian ideology will eventually bring any communist country to crisis.

"Moscow could be confronted simultaneously with defeat in Afghanistan, collapse and unrest in Romania, uprising in Poland and possible domestic uncertainty."

Between Romania and Hungary, Poland has stopped short of a national disaster, Bulgaria is following closely, East Germany and Czechoslovakia are still in the better "crisis" stage, Yugoslavia appears to live on borrowed money and borrowed time, and Albania is struggling to emerge from Stalinism (see figure 2).

Most of the countries subjugated by communist regimes since the 1970s can be placed in the first "violent" stage of the model. While the opposition is weakening, the communists consolidate their power and may even attempt to implement limited reforms. It is probably the only period when the communist regimes could be toppled, given enough Western assistance. It may be the case in Nicaragua and Afghanistan; both countries cost Moscow a great deal of money. Cuba, which has a strong communist government and little home opposition, is already in crisis and is kept afloat exclusively by massive Soviet aid estimated at $13 million a day.[12] Obviously, Cuba and several other geographically distant communist countries are important to Moscow

Warsaw Pact troops in an urban area is not an uncommon sight in Eastern Europe. It is the history these troops have made that is disturbing.

geo-politically. If a communist country of no strategic importance to the Soviet Union enters the "disaster" stage, it might be allowed to disintegrate rather than be supported and maintained by excessive Soviet efforts and expenditures. This is yet to be demonstrated, since communism outside immediate Soviet territory is of recent origin. Eastern Europe confronts Moscow with a different situation.

Three Eastern European countries will challenge their own communist regimes and Soviet domination in the near future, and they are heading in three different directions. Hungary, though still insecure, appears to be moving slowly toward a Western type of socialism. If Moscow tolerates this course of action, then Hungary could become the first Eastern European country to free itself of dogmatic communism. This new and subtle "revolution" has avoided another direct challenge to Soviet domination. Romania is the opposite example. Every additional year of postponed reforms will add to the Soviet economic burden, and no amount of Soviet economic assistance will be able to solve this country's socio-political problems. Western attempts to influence such countries in crisis as Romania and Poland through friendly diplomatic relations, cultural exchanges, trade incentives or economic sanctions, have only proven how little can be done to alter the course of communist government.[13]

Poland offers a more complex and

critical scenario and is apparently heading for another confrontation. While the military government is making efforts to return the country to a modicum of normalcy, Solidarity, the Catholic Church and the Polish people seem to be realigning and reorganizing for a new socio-political stage. If the cyclical uprising theory proves correct, there should be a new confrontation in Poland by 1990. Given the failures of the previous attempts, it is possible that the Poles may demand total freedom, challenging both domestic communism and Soviet domination. Moscow could be confronted simultaneously with defeat in Afghanistan, collapse and unrest in Romania, uprising in Poland and possible domestic uncertainty.

There will be an uneasy decade in Eastern Europe and the generation of the 1990s, born and formed under communism, will surely be more unpredictable than any other. Present feelings of defeat, malaise, desperation and demoralization could easily switch the direction of mood and action. Popular belief in communism is declining; there exists an emerging spiritual vacuum under the new regimes, and no one is quite sure of the direction in which their countries are moving.[14]

Eastern Europe is increasingly looking to the West for inspiration, and needs both the West and the Soviet Union for trade and cooperation. Maybe the time has come when Eastern Europe should become what geography meant

This is the second installment of an in-depth look at life in the Soviet Union during the Stalin era.
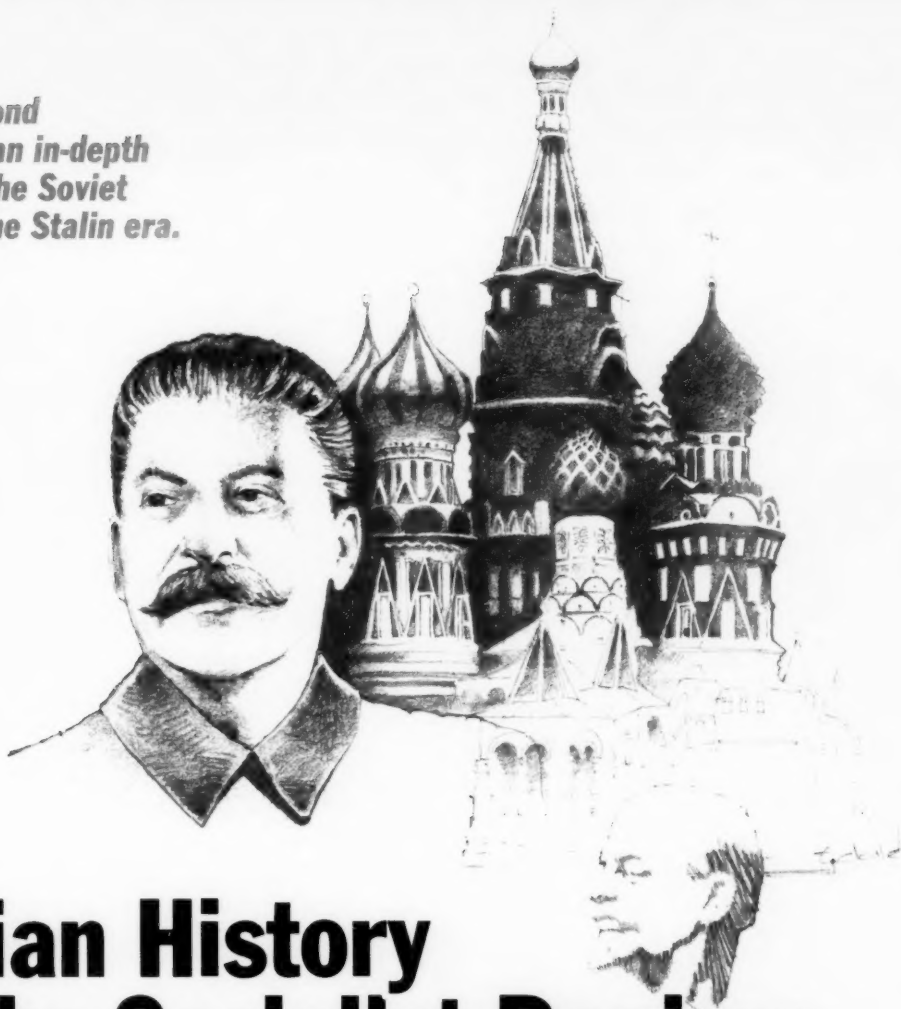
Russian History and the Socialist Regime

by Maj. Mark W. Hays

After World War I, the Soviet Union was a completely devastated country whose total economic and industrial systems were in ruin. A weak and backward country before World War I by European standards, Russia emerged from the crucible of war weaker still. The tsarist government had attempted to strengthen society by abolishing serfdom in 1861 and began an industrialization drive in the latter part of the 19th century. The war destroyed efforts to industrialize in order to keep up with powerful European neighbors. Table 1 graphically illustrates that industrial devastation. Russia's recent defeats in the Crimean War, Russo-Japanese War and World War I suggest that her military might was also questionable. In fact, the Russian Army totally collapsed at the end of World War I. Ceasing to be an organized and disciplined force, the army underwent internal revolution and wholesale desertion. To further complicate the disaster, Russia endured two revolutions in 1917 which would dramatically change her social and political systems. Under the leadership of Lenin, Russia accepted a humiliating treaty with Germany in order to exit the war and begin the country's primary goal, consolidation of the revolution. This sacred task left Russia isolated from the rest of the world for the first few years of the Revolution, as the existence of a new and radical worker's government spread fear to the industrialized world.

The reorganization of the Red Army began in 1924 under the commissar of war, Mikhail Frunze. Frunze died during an operation in October 1925 and was succeeded by Voroshilov. Stalin, who was secretary general of the Communist Party, had ordered Frunze's operation. Questions emerged later regarding Stalin's role in Frunze's death. Despite his untimely demise, Frunze did manage to initiate the modernization of the Red Army.

While progress was being made in several sectors during the 1920s, tension developed because of the political control the socialist state intended to maintain over the military. There were four years of intense inter-party warfare following the death of Lenin in 1924. The Party control over the military through the political commissar system created inevitable stress between

"Russia endured two revolutions in 1917 which would dramatically change her social and political systems."

the professional military officers and the political officers.

The Red Army made rapid expansion and mechanization progress in harmony with the Five Year Plan. This was particularly the case after 1935 in the face of an increasing threat of war with Germany. The restoration of the traditional military ranks occurred in 1935 with the creation of the first marshals. The senior commanders demanded the removal of the political officers' power.

In May 1937, the political commissar system was reintroduced at the highest levels of command. In June 1937, Marshal Tukhachevsky was arrested. Stalin's massive purge of the Red Army's leadership was soon to follow: "The great majority of the Red Army's commanders at brigade level and above were arrested. The Naval Command and the military commissars were similarly hit. The ranks of field-grade and junior officers also suffered enormous losses. Some were shot, others were sent to the camps. The Red Army lost more officers in these peacetime years than any army ever did in war."[2]

Stalin launched the military purge just at the time when the Red Army had begun to earn international respect. The purges definitely weakened the army and there is speculation that they contributed to the Munich Crisis, annexation of Austria and Hitler's absorption of Czechoslovakia.[3]

Remarkably, by the end of World War II the Soviet Union had emerged as the second greatest power in the world with a military force second only to the United States. The dreaded Socialist government overcame an assortment of internal and external threats and Russia proceeded to withstand Hitler's invasion and defeat the vaunted German Army. Stalin's slogan, "Catch up and leave behind," became a reality. Most of the world underestimated Russia. The statement made by Col. Gen. Franz Halder, chief of staff of the German Army High Command, in his private war journal six weeks after the Nazi invasion, is revealing. It said, "The whole

situation makes it increasingly plain that we have underestimated the Russian colossus, who consistently prepared for war with that utterly ruthless determination so characteristic of totalitarian states."[4]

It took the Soviet Union less than two decades to accomplish what the tsarist government never managed and what the West achieved over several generations: industrialization and modern military power. The methods used, however, were extreme and often brutal. The Soviet Union created a unique and permanently militarized society between the world wars, that endures today. The questions to be answered are why and how did the militarization take place? What form did it take?

Domestic and foreign policy became one under the totalitarian dictatorship of Stalin. The motive force characteristic of both past and present Russian history has been survival in a hostile world. The absolute is national security. This has meant survival through militarism. In the modern era industrialization can be viewed as synonymous with military development. In pursuit of this primary objective, the Soviets and particularly Stalin, tied the entire fibre of society to an industrialization effort.

In the Russian modernization/militarization drive the Communist Party replaced the power of the traditional institutions: tsar, church and government. That power in turn was captured by Stalin in 1928. Politics after Stalin's complete takeover in the late 1920s became realistic instead of idealistic; Stalinist politics were an essential part of the militarization effort. Stalin, abandoning the socialist theme of worldwide revolution, would adopt the theme of "socialism in one country," the fortress Russia. Contrary to Trotsky's orthodox

socialist attitude, "Let patriotism be damned," Stalin relied heavily upon patriotism to mobilize the populace during the rigors of industrialization. The creation of an effective and progressive Red Army was closely linked with the industrialization effort. Through Stalin's direction, Soviet society was radically transformed. This industrial and social revolution and the corresponding militarization ensured Soviet survival in World War II. However, the purge is usually credited with Russia's poor showing in the winter war with Finland in 1939-40 and the early German successes after their 1941 invasion of Russia.

Both external factors, i.e. Allied intervention and international relations, and internal ones, e.g. socialist struggle for power and the peasant problem, influenced Soviet militarization. Russian cultural traditions helped shape the militarization and set the stage for a Stalin dictatorship and the accompanying militarization. World War I, the greatest external threat to Russia's survival in the modern world to that date, surely marks a watershed in Soviet history. As one author states, "World War I is the ultimate source of most of the calamities of the 20th century."[5] It is fashionable in some circles to blame Soviet extremist moves on socialist ideology. Stalin, however, forsook much of the socialist ideology during his tenure in favor of realistic but harsh policies that promised

"The creation of an effective and progressive Red Army was closely linked with the industrialization effort."

Systems	1913	1921
Gross output of all industry	100	31
Large scale industry (index)	100	21
Coal (million tons)	29	9
Electricity (million Kwhs)	2039	520
Pig iron (million tons)	4.2	.1
Steel (million tons)	4.3	.2
Railway tonnage carried (millions)	132.4	39.4
Agricultural production (index)	100	60
Imports (1913 rubles)	1374	208
Exports (1913 rubles)	1520	20[1]

TABLE 1

Russian survival. He would even join the League of Nations and attempt to have normal relations with the capitalist world.

Stalin's unique and extreme militarization of the Soviet Union between the world wars is an excellent example of a newly formed country whose form of government has drastically changed and the factors which influence the move to militarization. Any attempt to compare the militarization of the Soviet Union with that of other countries which have changed their political system lies beyond the scope of this article. One could, however, speculate on some interesting comparisons with Cuba, Vietnam, Nicaragua and other primarily Third World countries.

A note of caution remains. Western nations often explore the Soviet Union in Western terms and traditions; this usually results in pat answers. This is a colossal mistake because the history of Russia, when compared to that of Western nations, is significantly different. Russia's cultural traditions were formed by different forces; the Renaissance, Reformation and Enlightenment did not influence Russia to a great extent and Russia was hardly touched by the traditions of the Roman empire. The Orthodox church, a prime influence on Russian culture and politics, differed in its concepts of society and state from the precepts of Western Catholicism and the Protestant churches it spawned.[6] The first major attempt to adopt Western knowledge and culture came in the 18th century and began with the reforms of Peter the Great. By 1917, transforming Russia into a European nation remained a goal, not an accomplished reality.

Basically, four factors have historically affected Russian foreign policy: geography, structure of international relations, level of cultural development and ideological orientation.[7] As George Yaney has argued, Russian political, legal and economic institutions have not only been influenced by foreign policy imperatives but to a large extent formed by them.[8] Geographical position arguably can be considered the most important. The Soviet Union confronts Europe along a 1,000 mile border lacking natural defenses and obstacles and populated largely by non-Russians. Because of its extreme northerly location, warm water sea ports are at a premium, as a means to ensure communications with the outside world and prevent isolation by hostile powers on the border. The structure of international relations, however, has at times meant that the majority of European powers were lined up against Russia, furthering her isolation. Russia's level of cultural development, which can justly be measured by industrialization, lagged far behind the rest of Europe until after World War I. Ideological orientation has under Orthodox tsars and Communist Soviets set Russia apart from Western Europe, whose desire to transfer its way of life (imperialism) to others has always been countered by a Russian mixed sense of ideological superiority and material inferiority.

Russia's foreign policy imperatives demand a strong military. Military and diplomatic necessities have dominated the evolution of the Russian state. The policies of Russian leaders, both Soviet and Imperial, are to a large degree an outgrowth of the problems they have faced in foreign policy. An organization to defend Russia, the army, existed before a self-conscious society evolved.[9] Russia has had five centuries of centralized control because of the necessities of foreign policy, "not because of

the inclinations and traditions of its subjects or the ideologies and rituals of its rulers."[10] This militarization would not reach its greatest degree of development, however, until Stalin's breakneck industrialization.

Russia's efforts at defense have produced far more defeats than victories and this experience has made her leaders more paranoid. Continually invaded through the centuries, the Russians have suffered subjugation and extreme deprivation. Repeated wars and inva-

> ## "The structure of international relations, however, has at times meant that the majority of European powers were lined up against Russia, furthering her isolation."

sions have made a lasting impact on the whole country. The list of invasions is extensive: the Mongols in the 13th century, the Poles in 1610, the Swedes in 1709, the French and their German allies in 1812, the English and French in 1854, the Germans in 1915, the Allies (Entente) in 1918-1920, and the Germans again in 1941. An unidentified man from the Central Committee of the Communist Party staff related to a New York *Times* correspondent: "My great-great grandfather was killed in the Turkish-Bulgarian War. My great-grandfather was killed in the Russo-Japanese War. My grandfather was killed in the Second World War. He was the oldest of them all. He was 39. You cannot understand us because you have not suffered and survived what we have."[11]

Russia's place in the European community was always second to the major powers because of her economic backwardness which is shown in table 2, the 1910 Industrial Production Table.[12] Russia's modest industrialization drive did not start until late in the 19th century having had to wait on the abolition of serfdom, which only occurred in 1861. This lack of the sinews of modern warfare helps explain why by 1914 Russia had not won a war against a Western nation since Napoleon's defeat in 1812. Russia even lost a war to a second-rate power, Japan, in 1905. Before the Bolshevik Revolution, Rus-

	Raw Cotton*	Pig Iron*	Railways**	Coal*
Germany	6.8	200	75	3190
France	6.0	100	87	1450
Great Britain	19.8	210	69	4040
United States	12.7	270	127	4580
Russia	3.0	31	24	300

* Kg per head
** Length related to population and area

TABLE 2

sia's power consisted primarily of its vast population, which in 1913, consisted of 174 million (almost three times the population of Germany, the European country second to Russia). But the poorly supplied and equipped Russian Army suffered 4 million casualties in World War I, the equivalent of the entire French Army.[13]

The humiliating treaties forced on Russia served as another sign of Russian weakness. The Treaty of Paris after the Crimean War left Russia without influence in the Danubian Delta, which was to become Rumania, and put the Black Sea off limits to the Russian fleet.[14] The Crimean War revealed Russia as a second-rate European power. Russia defeated Turkey in 1878 but the European powers, most notably Britain and Germany, forced her to accept the Treaty of Berlin, superseding the Treaty of San Stephano which had been more advantageous to Russia.[15] The Portsmouth Peace Treaty ending the Russo-Japanese War again demonstrates weakness. Russia was denied the right to station a strong fleet in the Pacific where Japan gained full sovereignty. This left the Russian defense of the Far East and Siberia to a poorly equipped and immobile land army whose lines of communication consisted of one railroad over thousands of miles of indefensible terrain.[16] The Brest-Litovsk Treaty with Germany, terminating Russia's part in World War I, cost Russia dearly. All the Baltic Provinces, the Ukraine, Finland and certain territory on the Russo-Turkish border were lost.[17] Russia was even denied participation in the Versailles Treaty at the end of World War I.

Lack of industrialization coupled with the vast size of the country formed the essence of the Russian military problem. Russia lost the Crimean War partly because most of their army could not be deployed in time to participate in the action. Russia's normal peacetime commitments on the extensive western border and vast coastlines made it possible for even a relatively small attack to bring her close to collapse.[18] This scenario repeated itself in the Russo-Japanese War. Stalin's perception of Russia's problem was best summed up in a speech in 1931 during the height of the Soviet industrial revolution.

One feature of the history of old Russia was the continual beating she suffered for falling behind, for her backwardness. She was beaten by the Mongul Khans. She was beaten by the Turkish beys. She was beaten by the Swedish feudal lords. She was beaten by the Polish and Lithuanian gentry. She was beaten by the French and British capitalists. She was beaten by the Japanese barons. All beat her for backwardness: for military backwardness, for cultural backwardness, for political backwardness, for industrial backwardness, for agricultural backwardness . . . . We are 50 to 100 years behind the advanced countries. We must make good this lag in 10 years. Either we accomplish this or we will be crushed.[19]

"As in the past, most of the state's economic effort went towards sustaining the army while the rest of the Russian society suffered."

Stalin's breakneck industrialization drive followed a familiar Russian pattern in which rivalry with other, economically more powerful states also provided the stimulus to domestic change. This was true of Peter the Great's reforms and the reforms that followed the Russian embarrassment during the Crimean War. It is a Russian tradition, therefore, for the state to be the main agency of social change. The state alters the economic and social relationships as needed to mobilize resources to increase its own power.[20]

The difference between the Soviet regime under Stalin and the regimes of previous Russian rulers was that Stalin's modernization, industrialization and militarization worked, *but at a tremendous human price.* The setting and the internal and external factors involved were far different. The world had become technically and industrially modern. Weapons were far more lethal and mechanization added the factor of time to the battlefield. Russia faced a threat far more serious than before, a truth Stalin understood when he demanded industrialization in 10 years.

The government that had to face the Western threat after the 1917 Revolution shows some breaks with the tsarist past, but there were still important cultural traditions that remained. Absolutism developed earlier in Russia than in the West, lasted longer, and was more complete and coercive.[21] Stalin kept the legacy of extreme absolutism alive between the world wars; the Soviets have never completely done away with it.

In the Western definition, Russia was making significant progress in the two decades before World War I. From 1906 to 1917, political parties could operate in the open and literature critical of the government could be legally distributed. This was the first and only time this has happened. In the Dumas, the mechanism was created for political representation of some of the people. A platform was available for voicing social and political demands,[22] although the power of the Duma was severely restricted by the tsar. In addition, the agricultural sector was actually making some progress under the Stolypin Land Reforms; the *mir* or village commune, an archaic system, was to be eradicated in favor of individual capitalistic reforms. The problems with land tenure and the peasant were very complex and the *mir*, in some cases, was actually strengthened. Still, there was progress before World War I: higher yields, increased use of machinery and fertilizers, and independent management techniques. The greatest period of industrial growth before Stalin came in the decades before and after the turn of the 20th century. The tsar's progressive minister of finance, Sergei Witte, skillfully directed this effort. The Russian Revolution in 1905 prompted much of the effort at social modernization; the efficacy of the archaic form of government under the tsar was being questioned. Russian success before World War I was, of course, relative to the other European powers; the devastation of World War I swept tsardom from the scene.

The Communist Party replaced the tsar as the real power in Russia after the October Revolution in 1917. The role and form that the Party aspired to was set forth in Lenin's book, **What Is To Be Done?** The Party was not based on the Western model; Lenin's party was a quasi-religious order of conspirators devoted to revolution. The conspiratorial group was to prepare itself to overthrow the tsarist government through revolution linked with Marxist Doctrine. Lenin felt that the masses could not acquire the proper class consciousness to conduct a socialist revolution of their own. The masses would have to be led by a body of professional revolu-

tionaries, the elite few,[23] which turned into the elite one, Stalin, in 1928. At the end of the war this party, led by Lenin, constituted the real power in Russia and set out to make some revolutionary changes in Russian history.

Many of the traditional institutions, which provided some degree of stabilization to society, were eradicated or completely changed. The regime's first legislation on the judiciary, for example, abolished the hierarchy of tsarist courts, which were shortly thereafter replaced by a much less complex dual system of local people's courts and military tribunals. The new law was subject to interpretation by a new breed of judges, mostly untrained in law, who were encouraged to let their "revolutionary consciousness" guide them in applying justice.[24] In religious affairs, the Bolsheviks, officially atheists, determined never to allow the Russian Orthodox Church the power it enjoyed in tsarist times.

These acts reflected the primary goal of Lenin and his party elite: to consolidate their revolutionary takeover of government and to force the ideals of socialism on the populace. What followed was approximately three years of hell on earth known as War Communism. It began with a decree on nationalization, making all large-scale industry liable to nationalization without compensation from the government. War Communism included force grain requisitioning, extreme inflation, the virtual disappearance of a money economy, a chaotic decline in industry, rationing, hunger, disease and complete subordination of everything to the government[25] but also military victory against all but impossible odds. It also included confiscating the property of the middle and upper classes, bourgeoisie and sometimes the execution of those who resisted the new socialist order. The terror of the *Cheka* (secret police) was extreme. It would become worse during the Stalin years. The chaos and suffering is well described by a defector, Col. Kourbatoff: "The whole country has ceased to be a nation, and has instead become a mass of disassociated, independent, semi-anarchic Republics. Each district, town and village is in rebellion against itself and one another. There is no money, financial system, lines of communication, postal service, or industry. Only 20 percent of the cultivatable land has been sown and commerce is at a stand-

still."[26]

War Communism emerged as a response to a violent counterrevolution, the Russian Civil War. The war involved different factions throughout Russia which were led by various military dictators called the white Russians. The reality of the threat to the revolution prompted Lenin to direct Trotsky to build up the Red Army, a task that had to be performed from the ground up. One of Lenin's first acts after the revolution was to take Russia out of World War I by signing the Brest-Litovsk Treaty with Germany. The new Soviet regime was not supposed to require an army because of the impending world revolution by the workers of all nations; this idealistic hope was short-lived. The reality of rule forced Lenin to become pragmatic. The Red Army grew from much less than a million in 1918 to five million in 1920. As in the past, most of the state's economic effort went towards sustaining the army while the rest of Russian society suffered. Important here is the official Communist Party definition of the Civil War. It was the "war of the workers and peasants of the nations of Russia against the foreign and domestic enemies of the Soviet power."[27] The word foreign refers to the Allied intervention in Russia during this period of War Communism and Civil War. The U.S. was deeply involved and this first encounter with the Soviets would leave a lasting impression. About 10 million Russians died in the Civil War years and only approximately one million were battle casualties. ★

Footnotes

1. Alec Nove, **An Economic History of the U.S.S.R.** (New York: Penguin Books, 1928), p. 68.
2. David Holloway, **The Soviet Union and the Arms Race** (New Haven: Yale University Press, 1983), p. 10.
3. James S. Herndon, "Colonel Philip R. Faymonville and the Red Army, 1934-1943," *Slavic Review*, 35 (Summer 1975), p. 491.
4. Anatole G. Mazour, **Russia, Tsarist and Communist** (Princeton, N.J.: D. Van Nostrand Company, Inc., 1962), p. 136.
5. Edward B. Segel, Review of **The Fateful Alliance**, by George F. Kennan (The History Book Club Review, December, 1984), p. 16.
6. Adam B. Ulam, **The Russian Political System**, 3d Ed. (New York: Random House, 1974), p. 9.
7. Roderick E. McGrew, "Some Imperatives of Russian Foreign Policy," in **Russia Under the Last Tsar**, ed. by Theofanis George Stavrou (St. Paul: University of Minnesota Press, 1969), p. 203.

8. George L. Yaney, "War and the Evolution of the Russian State," *South Atlantic Quarterly*, LXVI (Summer, 1969), p. 292.
9. Ibid., pp. 291-292.
10. Ibid., p. 306.
11. David K. Shipler, **Russia: Broken Idols, Solemn Dreams** (New York: Times Books, 1983), p. 281.
12. Nove, p. 15.
13. Morton Schwartz, **The "Motive Forces" of Soviet Foreign Policy, A Reappraisal** (Denver: University of Denver, 1970) pp. 2-3.
14. J.N. Westwood, **Endurance and Endeavour: Russian History 1812-1980**, 2d Ed. (New York: Oxford University Press, 1981), p.70.
15. Ibid., p. 109.
16. **U.S. Military Intelligence Reports,** "The Soviet Union, 1919-1941" (Frederick, Md.: University Publications of America, 1984). *Latvis* (Latvian language newspaper of Riga), 12 May 1933, item 0766, roll 1.
17. Westwood, p. 266.
18. Yaney, p. 302.
19. Theodore H. Von Laue, **Why Lenin? Why Stalin?** 2d Ed. (New York: Harper and Row, 1971), pp. 195-196.
20. Holloway, p. 14.
21. Robert V. Daniels, **Russia: The Roots of Confrontation** (Cambridge: Harvard University Press, 1985), p. 34.
22. Ulam, p. 27.
23. Ibid., p. 23.
24. Sheila Fitzpatrick, **The Cultural Revolution in Russia, 1928-1931** (Bloomington: University of Indiana Press, 1978), p. 169.
25. Westwood, p. 272.
26. War Department File M923. Reports on Conditions in Russia, August 1918-February 1919, item 256, roll 14.
27. **Bolsheviks, History of the Communist Party of the Soviet Union,** ed. by a Commission of the Central Committee of the C.P.S.U. (New York: International Publishers, 1939), pp. 226-229.

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The Cannon in the Swimming Pool:
Clausewitzian Studies
and Strategic
Ethnocentrism

by John E. Tashjean

What does "Clausewitzian studies" mean? An answer to this question is, perhaps, best approximated by successive iteration. For a first approximation, the following passage may suffice:

Three schools of thought dominate Clausewitzian studies. Raymond Aron's **Penser la guerre, Clausewitz** *(1976) perceives the practice and theory of war from Napoleon to the present as one subject: this is a perspective one may call neo-Hegelian for its holistic and evolutionary emphasis. The other two schools of thought do not rise to such comprehensive integration, but separate the historical Clausewitz from the Clausewitz who has operational significance today. The classic statement of the "operator's point of view" was made by (then) group captain R.A. Mason, RAF, in the* **Air University Review** *(March-April 1979).*[1]

In a second iteration, all three schools of thought can be illuminated by elementary logical analysis. The typology presented in Table 1 does not, of course, pretend to say all that logic can say in matters Clausewitzian: it seeks only to characterize briefly the intellectual operations typically constitutive of Clausewitzian studies.

A third iteration is an ostensive definition: it points to recent assessments of Clausewitzian studies. In 1980, Professor Werner Hahlweg (Muenster), in the 19th German edition of **On War**, supplied two lengthy essays which, taken together, constitute the most comprehensive overview of Clausewitzian studies.[2] Another assessment is presented in the author's "The Transatlantic Clausewitz, 1952-1982."[3] The latter as-

明君賢將‧所以動而勝

成功出於眾者‧先

Intellectual operations typical of Clausewitzian studies

A. Exegesis:
   the determination of what Clausewitz actually said and meant. This is clearly fundamental.

B. Explanation:
   showing the origin or justification of some view of Clausewitz.

C. Inference:
   the deduction of propositions only implicit in Clausewitz.

D. Decoration:
   the pointing out of Clausewitzian text which confirms conclusions arrived at independently.

E. Derivation:
   the use of Clausewitz to arrive at conclusions at which one could arrive otherwise, or at which someone has in fact arrived otherwise.

F. Exclusive heuristics:
   the use of Clausewitz to arrive at conclusions unlikely or impossible otherwise.

Table 1

sessment makes a case for a simple thesis: in retrospect from 1982 to 1952, there is an unmistakable and enormous progress in our understanding of Clausewitz. For that purpose, an exhaustive discussion of all Clausewitzian issues was neither necessary nor possible. Here, therefore, discussion concentrates on an issue previously left aside, the issue of strategic ethnocentrism.

Atkinson and Summers

As the author suggested in "The Transatlantic Clausewitz," two recent strategic post-mortems by Dr. Alexander Atkinson and by Col. Harry G. Summers, Jr., have contributed in important ways to Clausewitzian studies.[4] These two works are both politico-military in nature and invite comment in both respects. First of all, if only by remote implication, the highest level of politics is involved, namely the structure of the international system. Both Atkinson and Summers operate with a concept of strategy in a two-person game. Yet the Chinese civil war, which Atkinson re-examines with the help of previously untranslated Maoist material, was a three-person game involving the Chinese Communists, the Chinese Nationalists and the Japanese. Each had to take two deadly antagonists into account. It is much easier to think about two-person games than about three-person games: beyond the obvious points that a three-person game makes possible alliance formation and also separate peace, the important dif-

ference is that in a three-person game, threat assessment is necessarily more complex and more forcefully directs attention to strategic interactions, war aims and post-war environments. The present international system is certainly no simple two-person game. To that extent, the sketchiness of the Clausewitzian two-person paradigm of strategy (and of its followers) is emphasized.

A second thing which Atkinson and Summers have in common is that their concerns are non-nuclear: hence their interest in Clausewitz is both reasonable and extensive. This, too, links up with the Chinese civil war, for the whole of Maoist people's war was an ingenious way of defeating technologically superior enemies. Not by accident did the late Marshal Lin Piao allude to the nuclear aspect of the matter in his strategic post-mortem of the three-person game in China.[5]

If superior military technology is not necessarily conclusive power, then, what is power? Here Atkinson and Summers part company. Atkinson answers that power is produced by alienation: "power is everywhere alienated and concentrated for the conduct of war." This sounds Marxist, but is merely the populist or utilitarian element in Marxism. Summers has his own Clausewitzian populism: he criticizes the Johnson administration for conducting war as though it were an absolutist, 18th century regime beyond the will of the people.

Neither Atkinson nor Summers confront head on the problem of strategic

ethnocentrism; yet awareness of that problem alone allows us to recognize the full importance of Atkinson's work. What was the situation before Atkinson? From the Chinese Communist victory in 1949 past the fall of Saigon in 1975, strategic theory seemed in serious danger of fission, cultural relativism and intellectual delegitimation: the Western way of war with its theoreticians from Clausewitz onwards, seemed increasingly incommensurate with, and incapable of absorbing, successful non-Western strategies. This problem of strategic ethnocentrism has been transformed by Atkinson's rediscovery of strategic populism included in the Clausewitzian conception of war as a political phenomenon: one need only shift attention from politics as government to politics as popular sovereignty. To put it more generally and comprehensively:

Atkinson's criticism of Clausewitz on absolute war appears to be entirely separable from, and independent of, his derivation of revolutionary strategy from the Clausewitzian political formula on war. In other words, even if everything Atkinson says about absolute war in Clausewitz is right, his expansion and universalization of Clausewitz remain valid. In this way the figure of Clausewitz is so enlarged as to become, for the first time in all history, the truly global personification of fundamental strategy.[6]

This repair of the incipient breach in strategic theory takes place, however, at a very high conceptual level. While it is gratifying to devotees of Clausewitzian studies, it may not convince others that the breach has really been healed; and, in any case, the repair leaves untouched the problem of strategic ethnocentrism at the operational level. To convey something of that problem, we turn to considerations comparative and operational.

Ancient concepts of chess

That there was an important cross-cultural aspect of the Vietnam war is clear from the identity of the antagonists. The enemy were not simply Communists but Vietnamese Communists, which meant that, like Koreans and Japanese, they were deeply influenced by Chinese civilization however tenaciously they might resist Chinese military conquest or political domination. On our side, the "American way of war"

was at work—a variant of Western military ways infused with the impatience of the basically anti-military people of America. This clash of military cultures stills awaits its historian; here we venture only a summary and tentative treatment.

The historians of chess suggest that it began in ancient Persia or India as a training device for military officers, and then evolved into a parlor game. In any case, the game clearly reflects the national and international realities of the Western, Indo-European world. The two forces are, at the outset, lined up in their respective territories: there is a strong implication of national boundaries and international conflict. On each side, the pieces reflect a high degree of inequality within the society: there are more peasants (pawns) than there are officers, the higher clergy (bishops) stand closest to royalty, and the king's power is severely circumscribed. Note also that action at a distance is a major characteristic of queen, bishop, castle and knight: this resembles artillery, command of the sea and air power. The object of the game is to checkmate the king, that is to threaten him with capture. The evolution of chess in modern times has led analysts to divide the game into beginning, middle and ending phases. In the first phase, standard doctrine calls for rapid gaining of control of the center of the board. The middle game typically involves the deployment of officers, their attrition, defensive measures by the king (castling), and the use of main forces and reserves (queen, pawns). The end game is the encirclement and near-capture of the king.

The Chinese game of strategy known as wei-ch'i and as go in Japanese differs from chess in significant ways. The Chinese board is much bigger: whereas chess is played on 64 squares, the wei-ch'i board has 361 intersections (between 19x19 squares): "The number of stones allotted to each player (181 to Black, 180 to White) for a 19x19 size of board is such that—for practical purposes—neither side will ever be lacking men."[7] A continental dimension of territory is strongly suggested. The two players are furnished with white and black "stones" or "men" which are all alike: there is no reflection of status differences and differing military prowess. At the start of the game, the board is empty: the players by turns place their men. They may place them

wherever they want: the whole board "belongs" to both sides. There is no initial line-up and no front line. Taken together with the continental hugeness of the board and the uniformity of pieces, it is easy to interpret these game features as reflecting internal war in a very large country with an essentially homogenous (presumably agrarian) population. Domination of the country is the object, scored on a point system. It follows that a few points can mean victory, but clearly there are degrees of victory and domination in this internal war. Whereas in chess the early game has a clear, localized object of quick control over the center of the board, in wei-ch'i the first phase is a long, slow struggle for advantageous positions secure against envelopment: the corners, borders and sides are most important. This phase blends without sharp transition into the general struggle for domination by means of multiple envelopment. As the "men" remain on the intersections on which they are first placed (unless and until captured and removed), there is no movement: the placement of men with a view to building strong positions puts a decisive premium on foresight and the overall integration of one's actions.

Wei-ch'i also puts a premium on the threat and use of surprise by the large number of moves possible, the "leopard spot" dispersion on the large board, and by the circumstance that unplayed pieces are invisible on the board. The effect is very much that of a war without fronts.

Aspects of the Vietnam war

There is some evidence to show that wei-ch'i concepts were used by the victorious side in the Chinese civil war; in any case, such concepts help to explain much of it in retrospect.[8] No one has yet done for the Vietnam wars what Boorman has done to interpret the Chinese civil war in wei-ch'i terms, but there is a prima facie case that Vietnamese familiarity with wei-ch'i gave Hanoi an unrecognized intellectual advantage. Strategic encirclement from within and without was the ultimate object of Hanoi's early placement: the Viet Cong were left in place in South Vietnam while the Ho Chi Minh Trail was built at the edge of the "board." Also in the late 1950s, the noose was quietly laid around Saigon by the assassination of the chiefs and other officials in the districts around Saigon. Taken together, these

moves constituted an encirclement within an encirclement. In 1965 the growing strength of the Viet Cong and National Liberation Front was reaching decisive levels. Rejecting neutralization and defeat, Washington had no option but to introduce substantial U.S. ground forces. Even in retrospect some American analysts such as D. Pike consider that the Communists had won the war in early 1965. This, be it noted, without a major invasion, the destruction of the ARVN, or the capture of Saigon.

With the introduction of U.S. ground forces and the bombing campaign against the North in 1965, the picture certainly changed but earlier placements did not lose their value. The Ho Chi Minh Trail was in place and continued to operate; in South Vietnam, many base areas existed and survived repeated attack. Simultaneously with the fighting on the Vietnam front, two other fronts were placed and activated: international public opinion and the American home front. These three fronts supported each other so effectively that the Tet offensive of 1968 completed the "encirclement" of President Johnson and forced his removal from the global wei-ch'i board. It is a traditional wei-ch'i tactic to attack and surround objectives from within and without. Although a foolhardy move in Western terms, the Tet offensive achieved surprise and produced a shock leading to the bombing halt and the Paris negotiations; counterproductively it also prompted the government of South Vietnam to institute mobilization.

The next U.S. administration emphasized Vietnamization and bombing with a view to strategic extrication. Hanoi, on the other hand, emphasized continuous build-up from the border in the wei-ch'i manner:

As an initial step, NVA (North Vietnamese Army) forces labored long and hard during the first few months of the year to forge their border enclaves in South Vietnam into a fortress "third Vietnam" where they could rest and refit themselves without interference. Over 30,000 civilians and top managerial cadres were sent south to populate this thin wedge of real estate; logisticians began building a fully paved highway down its center from the demilitarized zone to a base camp just north of Saigon; and port facilities in the small town of Dong Ha just below the DMZ, which they had captured in

1972, were rapidly expanded. Within 12 months, over 20 percent of the war material destined for Communist units on the front line was flowing through Dong Ha, and NVA road networks, both inside the "third Vietnam" and through Laos and Cambodia, had been so effectively streamlined, reinforcements could move from bases in North Vietnam to the Saigon area in less than 25 days, one third of the previous travel time.[9]

In addition to this, penetration of the South Vietnamese Air Force and government continued—a practice consistent with the *wei-ch'i* intermingling of forces on shared territory. The final offensive and drive on Saigon, then, sealed the long, slow disintegration of the victim.

So much for an introduction to the comparative aspect of the matter. For further light on the strategic or operational aspect, we return to, and elaborate on, the previous remark that "it is a traditional *wei-ch'i* tactic to attack and surround objectives from within and without." Over-concentration on China is not the least risk one runs in comparing Atkinson and Summers, for Hanoi's strategy was an adaptation of Maoist concepts. Such over-concentration on any example precludes a sound consideration of the problem of strategic ethnocentrism.

Japanese evidence

Fortunately our data base is easily broadened by inclusion of some Japanese evidence. We turn to the Manchurian Incident of 1931, leaving aside the scholarly controversies over Japanese civil-military relations to draw the attention of students of strategy to the operational concept of then Lt. Col. Ishiwara.[10] Entrusted in 1928 with the planning for the conquest of Manchuria, Ishiwara in September 1930 submitted his proposal to Tokyo.[11]

It was his bold idea that Japan might take Manchuria from the inside out, by an action more resembling a **coup d'etat** *than an invasion. Japan's right of way in the South Manchuria Railroad would provide the necessary access and privileges. And infiltration and subversion would be far less expensive and dangerous than outright conquest. Chang Tso-lin's son, Chang Hsueh-liang, had a tremendous numerical superiority in troops. But if the timing were perfect, if privates, officers, diplo-*

mats and politicians were all properly coached; if a Manchurian government of all puppets were ready in the wings to present a fair face at once to the League of Nations; then Ishiwara would be able to take Manchuria for Hirohito like a magician in a flash of powder.[12]

And how was this bold scheme to be worked? We see again the *wei-ch'i* tactic of encirclement from within and without. Late in July the Japanese had a pair of 9.5-in. cannon mounted in a shallow silo in the very heart of Mukden, the capital city of Manchuria:

Twenty-five years earlier the Russians had used the cannon to good effect at the siege of Port Arthur. The bold idea of trucking the weapons north and installing them in the Japanese compound in Mukden had occurred to . . . Lt. Col. Ishiwara in late 1928. During the summer of 1929, he had prepared an emplacement for them under the . . . cover story that the Japanese community of attaches and aides in Mukden were building themselves a swimming pool . . . . The "pool" was surrounded by a large shed covered by a flimsy pretext of a roof that would permit an easy exit for shells . . . . Late . . . in May, 1931, . . . the doors were opened to admit two heavily guarded vans, containing the cannon. One of the cannon was installed so that it was permanently trained on the main barracks of the Mukden constabulary; the other so that it was aimed at the airfield from which Chang Hsueh-liang flew his fledgling air force.[13]

A few months later, by noon on September 19, 1931, the war for south Manchuria was, in effect, over:

The plans for inside-out conquest which strategist Ishiwara had begun to lay more than two years earlier had fully justified the obsessive patience and attention to detail which he had lavished on them. Only 400 Chinese had been killed—and precisely two Japanese.[14]

One has to take one's hat off to the Japanese; they knew what they were doing. And, clearly, the Oriental practice of encirclement is substantially different from Western ideas of encirclement as they have been made famous by Schlieffen. It is here, at this operational level, that Clausewitzian and strategic studies still seem to have considerable research and reflection to perform. ★

Footnotes

1. From the author's review of Clausewitz-gesellschaft, ed., **Freiheit ohne Krieg?** (Duemmler, Bonn, 1980), in **Strategic Review**, Summer, 1981, p. 73.
2. See the author's review in the **Journal of Strategic Studies**, June 4, 1981, pp. 209-11.
3. **Naval War College Review**, November-December 1982.
4. Alexander B. Atkinson, **Social Order and the General Theory of Strategy** (Routledge and Kegan Paul, London, 1981); Harry G. Summers, Jr., **On Strategy: A Critical Analysis of the Vietnam War** (Presidio Press, Novato, Calif., 1982).
5. Lin Piao, "Long Live the Victory of People's War!", **Peking Review**, September 3, 1965; reprinted in A. Doak Barnett, **China After Mao** (Princeton University Press, 1967), pp. 196-262.
6. From the concluding paragraph of the author's article on "The Transatlantic Clauzewitz, 1952-1982" as in note 3 above.
7. Scott A. Boorman, **The Protracted Game, a Wei-ch'i Interpretation of Maoist Revolutionary Strategy** (Oxford UP, New York, 1969), p. 12.
8. Ibid., especially Chapters 2-5.
9. Frank Snepp, **Decent Interval** (Random House Vintage Books, New York, 1978), p. 55.
10. See Mark R. Peattie, **Ishiwara Kanji and Japan's Confrontation with the West** (Princeton University Press, 1975) and the voluminous literature about the Manchurian incident and the Japanese and Chinese policies of the time.
11. David Bergamini, **Japan's Imperial Conspiracy** (Pocket Books, New York, 1972), p. 414.
12. Ibid., p. 399.
13. Ibid., p. 435.
14. Ibid., p. 446.

John E. Tashjean, a political scientist and strategic historian, completed his graduate work at Georgetown Univ. He authored **Where China Meets Russia** *and writes widely on matters dealing with national security and strategy. Dr. Tashjean, formerly associated with the Institute of Defense Analysis, is President of Conflict Morphology, Inc., Arlington, Va. He has previously been published in the* **Journal of the Royal United Services Institute for Defence Studies, Naval War College Review, Military Affairs** *and* **Armor.**

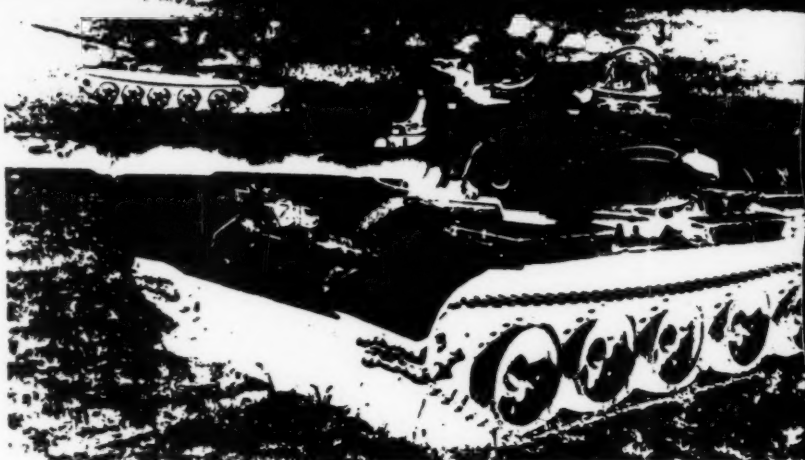# How Weather Influences Thermal Imager Performance

by Dr. Mary Ann Seagraves

Today's soldier has more lethal and longer range fighting capabilities than ever before in the history of warfare. Many currently used weapons such as the TOW, Dragon and the M1 tank have been equipped with heat sensitive thermal imagers. These weapons are particularly effective at night and can "see" through much of the fog, dust and smoke that often obscure the battlefield. However, the target acquisition capabilities of thermal imagers can be strongly affected by local weather conditions, often in ways that may not be expected.

Thermal imagers are designed to produce images of targets in scenes. They observe infrared energy which is emitted, reflected or generated by the objects in the scene. The amount of infrared energy emitted by an object is determined principally by the object's temperature and its surface and structural properties. Since infrared energy is not as greatly diminished as visible energy at night, thermal imagers tend to function at night as well as or better than they function during the day.

A target may be acquired with a thermal imager only if the amount of infrared energy of the target is sufficiently different from that of the background. This difference is called the thermal contrast and is frequently denoted as T (pronounced "delta tee"). Thermal contrast is closely related to the difference in the temperatures of the target and background. A thermal contrast exists whether the target is warmer or cooler than the background.

The target must be large enough or close enough for the imager to "resolve" it for target acquisition to occur. Also, the atmospheric path between the target and the imager must be reasonably clear for the target to be acquired. The local atmospheric conditions can significantly affect not only the propagation through the atmosphere, but also the T.

During the course of the day and night, target and background objects undergo continual temperature changes and tend to heat and cool at different rates. Large, dense objects such as boulders, tree trunks and nonoperating armored vehicles heat and cool slowly. Other objects such as grass, tree leaves, bushes and the surface layer of the ground heat and cool more quickly. There are times at dusk and dawn when the tank and background have very nearly the same temperature and the T is quite small. This event is called thermal reversal, crossover or washout. The timing of thermal reversal depends on weather and target conditions. When it occurs, the target cannot be acquired by a thermal imager. Thermal reversal can occur when environmental conditions cause the target and background to have very nearly the same temperature. Thermal reversal can occur within a period of a few minutes due to variations in the weather conditions.

The presence of cloud cover affects the T by reducing the amount of solar radiation during the day and increasing the amount of incoming infrared energy, particularly at night. In general, the presence of clouds will reduce the thermal contrast with lower, thicker clouds having stronger influences.
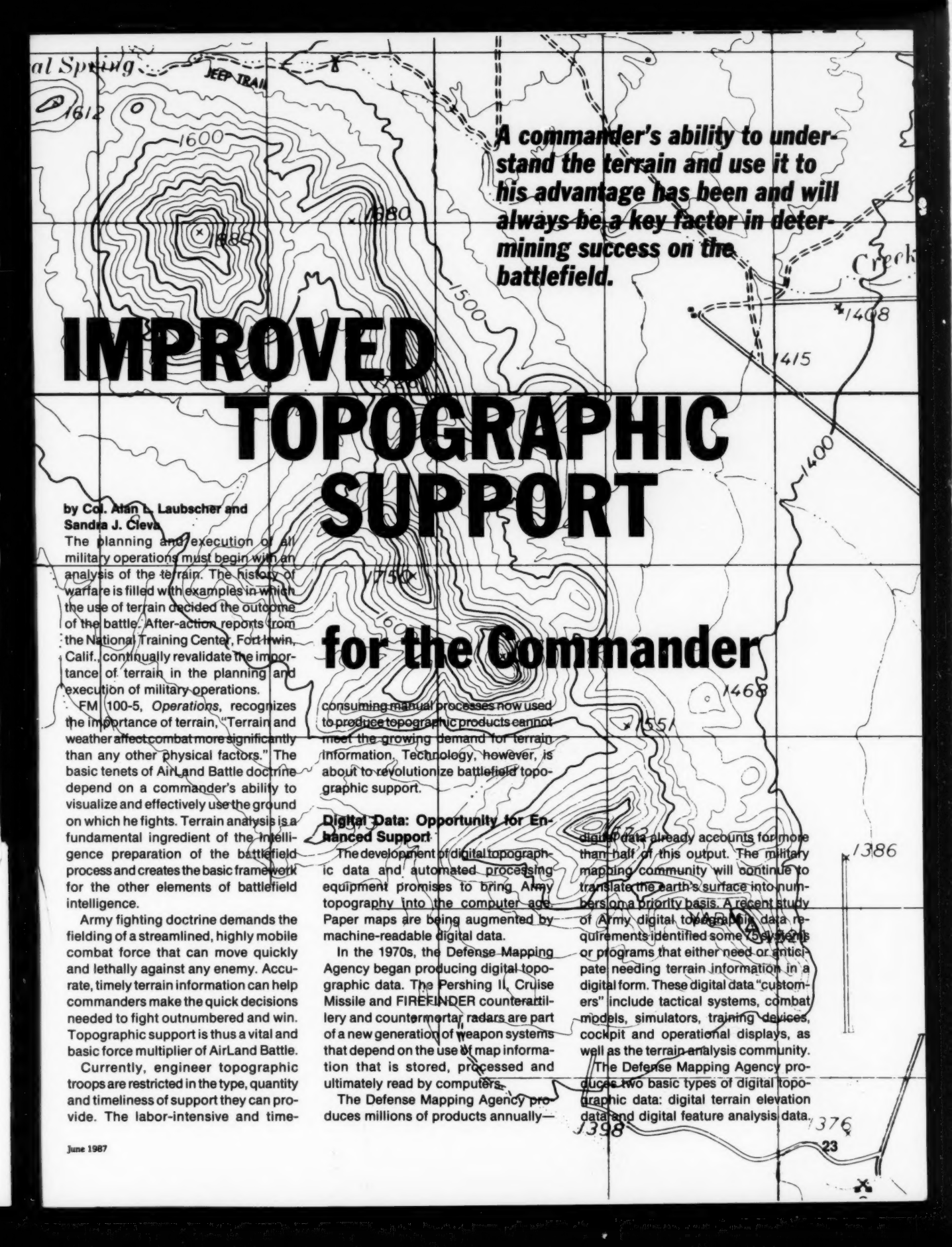
The presence of wind also will reduce the T by increasing the heat exchange between the air and the target and background. Wind causes temperatures of both the target and background to become closer to the air temperature and, as a result, closer to each other. Wind normally causes lower target and background temperatures during the day and higher temperatures at night.

The amount of humidity in the air influences the T for moist backgrounds by affecting the rate of cooling of the surface by evaporation. Lower humidity usually results in a cooler background. The effect on the thermal contrast depends on the target temperature relative to that of the background. The cooling by evaporation is enhanced by the presence of wind. Certain combinations of humidity and wind can cause instances of thermal reversal. For example, a nonoperating tank that normally appears cooler than the background during the day may radiate at nearly the same temperature if the humidity is low or the wind is blowing.

Falling rain and snow tend to have a cooling effect that brings target and background temperatures closer together, reducing the thermal contrast. However, in the case of operating vehicles, the T may be increased since the precipitation will have little effect on the heat generated in the engine compartment and in the exhaust.

When a scene is made up of objects

A commander's ability to understand the terrain and use it to his advantage has been and will always be a key factor in determining success on the battlefield.

IMPROVED TOPOGRAPHIC SUPPORT

for the Commander

by Col. Alan L. Laubscher and
Sandra J. Cleva

The planning and execution of all military operations must begin with an analysis of the terrain. The history of warfare is filled with examples in which the use of terrain decided the outcome of the battle. After-action reports from the National Training Center, Fort Irwin, Calif., continually revalidate the importance of terrain in the planning and execution of military operations.

FM 100-5, *Operations*, recognizes the importance of terrain, "Terrain and weather affect combat more significantly than any other physical factors." The basic tenets of AirLand Battle doctrine depend on a commander's ability to visualize and effectively use the ground on which he fights. Terrain analysis is a fundamental ingredient of the intelligence preparation of the battlefield process and creates the basic framework for the other elements of battlefield intelligence.

Army fighting doctrine demands the fielding of a streamlined, highly mobile combat force that can move quickly and lethally against any enemy. Accurate, timely terrain information can help commanders make the quick decisions needed to fight outnumbered and win. Topographic support is thus a vital and basic force multiplier of AirLand Battle.

Currently, engineer topographic troops are restricted in the type, quantity and timeliness of support they can provide. The labor-intensive and time-consuming manual processes now used to produce topographic products cannot meet the growing demand for terrain information. Technology, however, is about to revolutionize battlefield topographic support.

Digital Data: Opportunity for Enhanced Support

The development of digital topographic data and automated processing equipment promises to bring Army topography into the computer age. Paper maps are being augmented by machine-readable digital data.

In the 1970s, the Defense Mapping Agency began producing digital topographic data. The Pershing II, Cruise Missile and FIREFINDER counterartillery and countermortar radars are part of a new generation of weapon systems that depend on the use of map information that is stored, processed and ultimately read by computers.

The Defense Mapping Agency produces millions of products annually— digital data already accounts for more than half of this output. The military mapping community will continue to translate the earth's surface into numbers on a priority basis. A recent study of Army digital topographic data requirements identified some 75 systems or programs that either need or anticipate needing terrain information in a digital form. These digital data "customers" include tactical systems, combat models, simulators, training devices, cockpit and operational displays, as well as the terrain analysis community.

The Defense Mapping Agency produces two basic types of digital topographic data: digital terrain elevation data and digital feature analysis data.

DIGITAL TOPOGRAPHIC SUPPORT SYSTEM
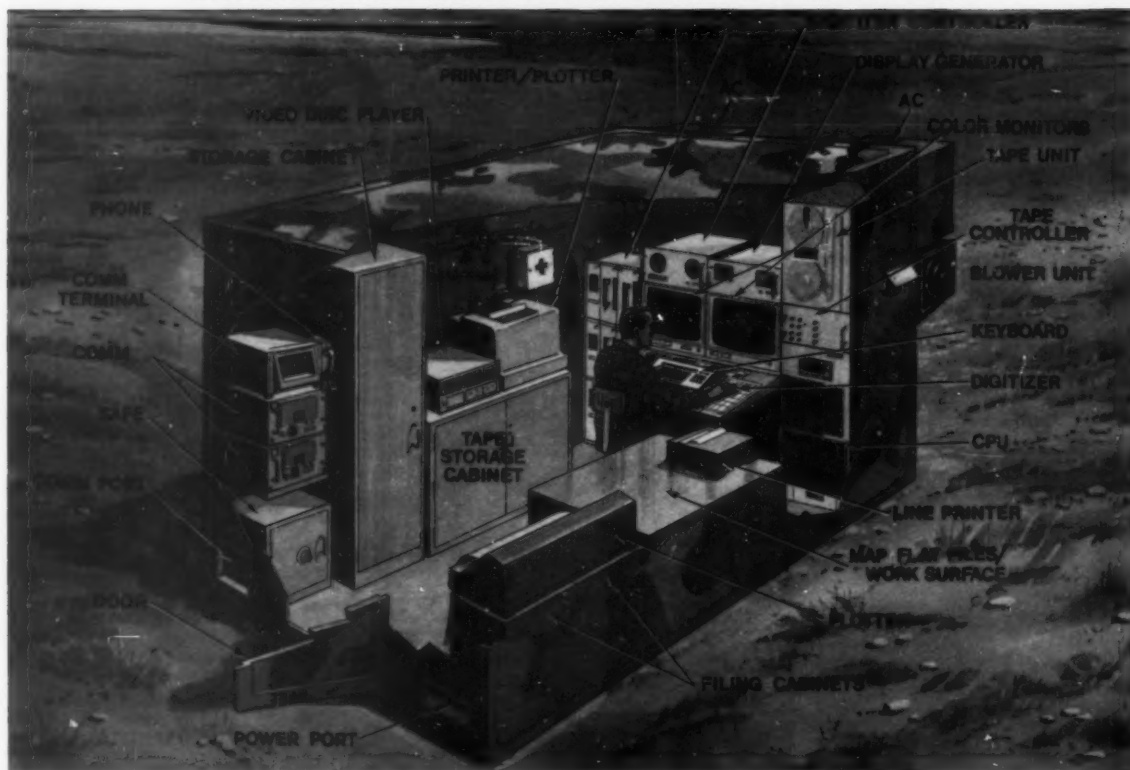
The Digital Topographic Support System will give the battlefield commanders the terrain information they need to plan and execute operations. Scheduled for fielding in 1991, this system will automate much of the work now involved in terrain analysis.

Digital terrain elevation data uses an array of uniformly spaced points to describe the shape of the earth's surface. Each point is defined by its height above a specified vertical datum (usually mean sea level).

Digital feature analysis data describes the characteristics and geographic location of man-made structures and natural landscape features. These data sets use a series of x,y coordinates to define the location of each feature. For example a wooded area made up of coniferous trees of a certain height would be defined as the polygon created by the string of x,y points that form its boundary. Digital feature analysis data can depict point features such as towers or silos, linear features such as roads, rivers or powerlines, and aerial features such as woods or lakes.

Presenting map information in digital form offers important advantages to both those who assemble and those who use geographic data. With the advent of computer technology, the military can efficiently store and retrieve vast amounts of topographic informa-

tion. Paper maps can become inaccurate within months; revising them represents a considerable production job. Digital data files can be updated with far greater ease.

The availability of digital topographic data has given military missiles the ability to hit targets with extreme accuracy and aircraft simulation systems the ability to allow pilots to fine-tune their skills prior to leaving the runway. Digital data will also affect troops on the ground. Digital technology gives commanders the improved topographic support they need to keep abreast of and control the fast-paced action on the modern battlefield.

Technology for the Battlefield

Scientists at the U.S. Army Engineer Topographic Laboratories (USAETL) are developing the techniques and equipment that will allow the field army to take full advantage of the digital data revolution.

USAETL's mission is twofold: first, to conduct topographic research and development and second, to produce

operational terrain analysis. The laboratories' research and development activities cover the general functional areas of mapping, terrain analysis, surveying and navigation, weapon system support, point positioning and the battlefield environment.

Two current USAETL developments will significantly affect field topographic support—the Digital Topographic Support System and the Quick Response Multicolor Printer. During the next decade, commanders will be getting terrain information in new, more useful formats at unprecedented speeds.

DTSS: Digital Data to Support Field Operations

The Digital Topographic Support System will provide engineer terrain teams an automated capability to store, update, create and process digital topographic data. Soldiers will be able to generate complex terrain analysis products which show commanders the effect of terrain on a variety of military operations.

The Digital Topographic Support

System will automate much of the manual work now involved in terrain analysis. Terrain analysts will use digital topographic data bases and sophisticated computer programs to produce a range of products and a timely response that is impossible on the battlefield today.

Terrain teams will also have access to more than 20 different terrain analysis programs with the Digital Topographic Support System. These programs will supply commanders with a variety of products to support tactical planning and decision making. The products are classified as either intervisibility or mobility.

Intervisibility analysis uses elevation and vegetation data to define areas that can be seen (either electronically or optically) from a user-specified location. For example, one Digital Topographic Support System intervisibility model processes information concerning the performance parameters of a radar unit along with the appropriate terrain data. The resulting target acquisition plot maps out a series of concentric color-coded polygons which show the radar's range of coverage for targets approaching at different altitudes.

Digital Topographic Support System intervisibility products include terrain profiles, masked area plots, perspective views, flight line masking graphics, minimum detection altitude computations and oblique projections. These products show how the terrain will affect the performance of weapons, communications facilities, short-range radar and other battlefield sensors. Commanders can use this information to determine the best location for these devices.

Digital Topographic Support System mobility products assist commanders with decisions on maneuvering their men and equipment. These products work primarily with digital feature data. The cross-country movement model, for example, compares the performance characteristics of a selected vehicle (climb and override) with the slope, soil and vegetation found in the proposed area of operation. The resulting product supplies the commander with the vehicle's off-road speed capabilities.

With Digital Topographic Support System mobility models, analysts can compute the probability of aerial detection for troops and vehicles, examine lines of communication, predict possible river crossing sites, and identify optimal helicopter landing and drop zones, infiltration routes and air avenues of approach.

Improving terrain analysis support for commanders is the initial goal of the program. The first units, which are scheduled for deployment in 1991, will give terrain teams access to sophisticated analytical capabilities previously described.

Although the soldiers assigned to The Digital Topographic Support System will have the hardware and software needed to process digital terrain data, they will initially have a limited capability to update this information. Such a capability becomes increasingly important in a combat environment. Fighting the battle can transform the physical features of the battlefield. The digital terrain data bases used to support tactical operations will need to take these changes into account.

A Pre-Planned Product Improvement (P³I) program has been designed to address this need. This effort will upgrade The Digital Topographic Support System, giving terrain teams the equipment needed to create, update and revise digital terrain data bases. Soldiers manning the system will be able to extract geographic information from a variety of source materials—including imagery, overlays, maps and charts. They'll use this information to intensify and update existing data bases or create new ones if the coverage needed is not available.

The P³I program will incorporate other improvements. Environmental analysis software being developed under the Corps of Engineers' AirLand battlefield environment thrust, for example, will expand the system's analytical capabilities.

The Digital Topographic Support System will be housed in an S-280 shelter mounted on a five-ton truck. It will replace the Direct Support Section of the Topographic Support System. The current operational and organizational plan calls for fielding one system per division, two systems per corps, and two systems for echelons above corps.

QRMP: Reproducing Terrain Information

The automated capabilities provided by the Digital Topographic Support System will transform the way the Army gathers and analyzes terrain information. Topographic support, however, also involves reproducing terrain information. The Quick Response Multicolor Printer will ease field units' capabilities to copy terrain graphics, maps and other products.

The Army presently relies on conventional lithographic presses for repro-

QUICK RESPONSE MULTICOLOR PRINTER
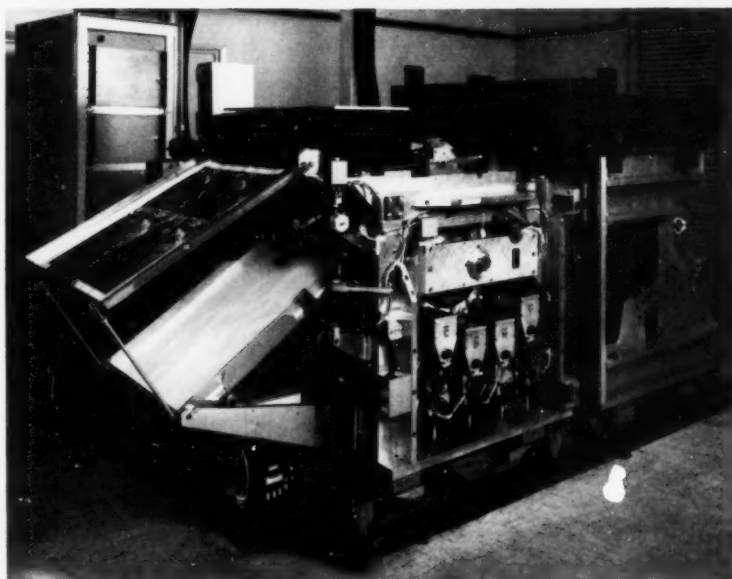
The Quick Response Multicolor Printer will give the Army a fast, combat oriented reproduction capability. This model will eventually operate from a five-ton truck.

duction support. Although these presses can print large numbers of products at reasonable cost, they are not designed to handle small runs. Nor are they capable of quick response. Lithographic printing involves time-consuming set up and production procedures. Reproducing a field-generated graphic can take almost eight hours.

The Quick Response Multicolor Printer, when fielded, will produce 75 multicolor or 225 monochrome copies per hour while matching the print quality achieved by the lithographic presses. It will provide hard-copy reproductions of products as large as 24 by 30 inches—the size of a standard topographic map.

The Quick Response Multicolor Printer uses a dry printing process similar to that employed in commercial copy machines. A laser scanner improves this electrostatic process and provides the high resolution needed for printing terrain graphics and other topographic products.

The first printers to reach the field will reproduce most types of hard-copy products—including standard maps, annotated maps, terrain analysis graphics, transparent overlays, photographs and captured enemy documents. The addition of a digital interface will expand the system's capabilities. In the future, soldiers will be able to print hard-copy products directly from digital terrain data provided by the Defense Mapping Agency or automated field systems like The Digital Topographic Support System.

The Quick Response Multicolor Printer will be more mobile than today's field reproduction system and will require a smaller support base. The reproduction section of an engineer cartographic company at corps and echelons above corps now requires 27 soldiers and 10, 30-foot equipment vans to operate. Only one soldier will be needed to operate the new printer; it will be housed in a 20-foot, ISO container mounted on a five-ton truck.

Initial fielding of the Quick Response Multicolor Printer will begin in 1992. The operational and organizational plan calls for deploying one system to each terrain team (echelons above corps, corps and division) and two systems at corps to replace the reproduction subsystem to the Topographic Support System.

In the Lab: New ways to Extract and Exploit Terrain Data

Fielding the Digital Topographic Support System and Quick Response Multicolor Printer will significantly improve the topographic support available to commanders in the 1990s. As the Army's center for topographic research, USAETL is additionally studying the impact of new technologies on the Army's topographic capabilities.

Feature extraction represents a major focus of these research efforts. Aerial photographs provide the major source of military geographic information. Highly trained specialists examine this imagery and identify the terrain features by the shapes, shades and patterns they see.

USAETL scientists are attempting to transfer some of this laborious work from man to machine. Research conducted in the past (mathematical pattern recognition and conventional computer techniques) produced few programs accurate enough for operational use. Artificial Intelligence, however, offers an alternative to these approaches.

Artificial Intelligence computer programs can manipulate symbolic data using informal decision making rules. Like human specialists, they use inferential reasoning, logic, deduction and a stored knowledge base to interpret information and solve problems.

With Artificial Intelligence techniques, USAETL scientists hope to develop progressively more sophisticated, feature extraction programs that employ semi-autonomous and autonomous operations. Two current demonstration projects focus on the specific feature extraction problems involved in determining drainage networks and identifying urban features.

New ways to extract terrain data will facilitate the creation and update of digital topographic data bases. USAETL is also investigating new sources of terrain data.

The potential of sophisticated NASA-developed space platforms and satellite-based sensors offers important new "raw material" for the topographic community. USAETL researchers, for example, have evaluated information obtained from the multispectral sensors developed for NASA's Landsat program. They used computer programs to merge this information with the Defense Mapping Agency terrain elevation data and produce three-dimensional perspective views. Future studies will explore the generation of tactical terrain graphics from multispectral imagery. Work in this area may eventually allow the Army to exploit multispectral sources in the field.

Computer image generation technology represents another potential improvement for field topographic support. Computer image generation systems combine digital terrain elevation and feature data with information from maps, photographs and satellite imagery to produce realistic pictures of the terrain. These pictures show natural features as man-made objects, such as bridges, buildings and roads.

Computer image generation scenes are already used in flight simulators and other training devices. USAETL is investigating the application of this advanced computer graphics technology for mission planning and battlefield management.

Computer image generation may prove an ideal command and control tool. Computer-generated terrain scenes eliminate much of the interpretation that accompanies reading a map. "Seeing" the battlefield terrain features will aid commanders in studying their area of operation and planning their course of action.

USAETL's research will ensure the Army has access to state-of-the-art topographic technology. Current projects will result in better ways to acquire, process and display terrain information. This will provide commanders on tomorrow's battlefield a key force multiplier—an enhanced knowledge of the battlefield. ★

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T raining E aluation C mplex
a possible solution

by Lt. Col. William C. Burch and
Lt. Col. Brian L. Raymond

The combat arms are chartered to close with and defeat the enemy. They require realistic training and thorough evaluation if they are going to "Train the way we fight." The National Training Center (NTC), Fort Irwin, Calif., successfully provides training and evaluation through stressful, realistic field training exercises. The sand box and computer war games in a CPX scenario are fine for the abstract functions of war, but nothing tests leaders like battle itself.

Although different in its application, the same rationale is true for combat support and combat service support elements. They, too, will fight the way they train. Since its establishment in 1981, the NTC has improved the combat readiness of maneuver battalions and their supporting arms. The NTC's benefits led to a series of training initiatives. An effective, coordinated Army environment is needed to credibly validate MI doctrine, because we have not adequately stressed our CEWI units. If a battlefield commander cannot find the enemy via intelligence, he cannot close with him.

These insights caused the Intelligence Center and School, in 1986, to charter the Intelligence Training and Evaluation System Program Management Office (ITES PMO). The ITES PMO noted that at NTC, maneuver units were applying and testing their skills in a stressful, near-combat environment. NTC training set the standards for commanders to judge combat readiness. Starting in October 1987, maneuver brigades will be given the opportunity to train to standard at the NTC. A recent article entitled, "Getting the U.S. Army Ready for War" (*Armed Forces Journal International*, May 1987), stated that by 1990, brigades cycling through the NTC will be comprised of all three maneuver battalions supported by the brigade slice, a representative mix of artillery, attack helicopter, air defense, engineer, electronic warfare, chemical units, combat service support elements in the forward support battalions, and an ap-propriate level of Air Force tactical air. The brigades will operate under division headquarters to give all echelons more realistic field training as a combined arms team.

Incorporating intelligence play, from a CPX role to the FTX world of the NTC, is a complex problem. To operate realistically, the intelligence operators must collect against the same threat that the maneuver forces are fighting. They must provide more support than normally expected. Externally derived intelligence should be coherently matched with the intelligence collected by the front end operators. The ITES PMO concluded that replication of an accurate threat was perhaps the greatest challenge in its charter. The synchronization of CPX scenario with FTX intelligence was the second most challenging task.

In discussing the philosophy of training for the Army, Field Manual 25-1, *Training*, notes: "Because the Army trains for war, not for peace, the battlefield fixes the directions and goals of training. . . . Training must be tactically and technically sound, effectively structured and realistic." Therefore, to maintain a high training readiness posture among intelligence soldiers and to ensure effective battlefield performance, the Training and Evaluation Complex (TEC) has been developed. The TEC aims to provide training capability for the intelligence forces that is similar to what the maneuver forces experience during NTC rotations.

Essentially, the concept of TEC is simple. The only effective way to train an intelligence soldier outside the context of actual battle is to simulate battle and provide the soldier collection resources. In a CPX, it is relatively simple to replicate the message traffic that a soldier could expect to see; for the maneuver forces in an FTX, intelligence planners provide the OPFOR to simulate the enemy. The intelligence community has only recently developed an acceptable method for simulating the extensive *raw data* that intelligence collection operators must gather. Because of security constraints, most operators were restricted from collecting against live emanations in a tactical training environment. Tapes, as a part of the collection system, became fairly familiar, but it was impossible to effectively coordinate with a tactical scenario that allowed any kind of play at all. The ITES PMO was charged with finding a method to dynamically simulate the materials an operator would encounter. This method involves partitioning the battlefield into discrete sets of elements that are manageable and collectible by any given collection system. TEC allows a tactical collector to perform his mission in an FTX environment against a postulated and thoroughly simulated threat. For example, within the TEC, the SIGINT collector operates both technically and tactically as he would in a real environment, and he reports on his collection in accordance with existing doctrinal guidance. The difficulty is simulating a realistic threat—therein lies the beauty of TEC. Previously, tactical operators had to collect against canned tapes that quickly became familiar, or they worked against readily available friendly targets. In both cases the operators gained proficiency, but did not reasonably improve their capabilities to perform their assigned mission. On FTXs, they could operate collectors against the OPFOR or simply move and set up tactically, but again, they received little experience against real targets. Consequently, commanders got few opportunities to evaluate their intelligence personnel, equipment or doctrine against a realistic foe. Placing real targets on the "battlefield" to cure the problem posed insurmountable security problems; hence, the intelligence soldier derived what benefit he could from the training.

The TEC will allow a microcomputer, the Target Signature Array (TSA), to provide pseudo-live targets to the system according to a given scenario. If the tactical scenario changes, the TSA can be dramatically altered to reflect those changes in the tactical environment. Because the TSA resides within a tactical shelter, security problems are minimized.

Telling the TSAs located with each collection system which targets to "play," and when and where in the tactical scenario, is the role for the TEC Control Center (TCC). Because of the way the data bases and files at the TCC and TSA are configured, messages between the systems are not classified. As a result, we avoid the knotty problem of classified transmissions altogether. In addition, to transmit messages from the TCC to the TSAs without interfering with the collectors' organic communications assets, we intend to use dedicated VHF/UHF communications. Together, the TEC comprises the interaction of the TCC, the TSA and the unclassified communications link between them, all working to provide the operator with realistic and plausible training.

Each of the TSAs replicates a filtered portion of the battlefield that represents what a particular collection system might be expected to encounter and process, given geographic and electromagnetic propagation considerations. Hence, the resident TSA data bases pass only those targets that the system could logically be expected to observe or hear. The TCC and TSA track what has been presented to the operators and what the operators have collected. Moreover, the TCC and TSA maintain continuity of the several targets that are enabled for the various systems. For example, if an operator identified a specific enemy tank regiment, based on an analysis of his collected data, he could expect that the target would maintain the same sort of traffic continuity that could be expected from a live target. The targets are logically consistent and provide a coherent and integrated "picture" of the battlefield. This kind of continuity and integration will allow a SIGINT operator to play thoroughly in the FTX war game with realistic data, and it will allow the supporting analysts to provide maneuver commanders with an accurate assessment of the situation based on realistic traffic and intercepts.

Field Manual 25-1 notes: "Unit training is driven by mission. The tasks and associated standards are contained in Army training and evaluation programs (ARTEPS)." ARTEPS for the tactical intelligence systems did little to allow the Army to exercise, test and evaluate its capabilities realistically so the quality of IEW products could be truly evaluated. Given the capability of the TEC,

not only can the Army evaluate its operators, it can also test their overall capability to support the force, the adequacy of MI doctrine, the validity of the MI force structure and the effectiveness of various MI equipment against the threat. We will be able to simulate the actual threat that faces the MI collector.

The identification of a common driver for both the CPX and FTX scenarios will fully integrate the system into the Combined Training Center program. The TSAs can be configured to allow for the geographical and target changes that the multifaceted and flexible missions of many Army units demand. Since this type of modularity is built into the system's data bases and algorithms, as long as the scenario driver for the maneuver unit is identical to that supplied to the supporting intelligence unit, intelligence can support the commander with realistic situation assessments. Helping toward this end, the Army is moving to make TACSIM (a computer-driven war game) the standard intelligence driver for the Battle Command Training Program, a major initiation designed to train and exercise corps and division-level headquarters elements. Since TACSIM was originally developed as the driver for the All-Source Analysis System exercises, it obviously has the capabilities of the intelligence system as one of its constituent elements. At the corps and division level of resolution, TACSIM provides a fine CPX driver, as mandated by the requirements of the Battle Command Training Program. As we move to the level of resolution required at the National Training Center, the Joint Readiness Training Center (Fort Chaffee) and the Combat Maneuver Training Complex (Hohenfels, West Germany), where brigade and battalion task forces are trained and evaluated, we need only to refine the level of resolution available through the TACSIM driver. At that level, the tactical CEWI units can collect data that serves to advance the tactical play. Specifically, data can collectively fit into the scenario of the division/corps CPX within the Battle Command Training Program and generally, in the CTC program. By defining and refining the resolution of the "lens" through which we regard the battlefield, we can utilize the same driver to serve the purposes of both CPX and FTX.

The TEC is a vehicle that can train

military intelligence soldiers worldwide. Because the system employs microcomputers with their own internal data bases and algorithms to drive the TSAs, mobile training teams could be employed. For example, a team could attach the system to a collection and jamming platoon's equipment at its home station to provide individual and collective training. At the NTC, a CEWI unit could be outfitted with microcomputers to provide requisite intelligence support to the training maneuver elements. The TEC also enables commanders to assess other IEW products—force structure, doctrine and equipment. By operating a CEWI battalion in a realistic threat environment, we should be able to determine whether the mix, density and type of MI equipment we have is adequately and accurately targeted against the threat. We can determine not only whether we are training our operators correctly but also, whether we have provided them with the appropriate doctrinal landmarks to guide their operations. Perhaps in a rich electromagnetic environment our reporting and analysis doctrine will need to change. We may find that some of our equipment is inadequate or misconceived for the task at hand. In any case, it is far better to discover the deficiencies in the training and evaluation environment than to find out too late, after the fog of war has obviated any chance of correction. ★

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AUTOMATION SECURITY

by Capt. Susan A. Wajda

The Army Automation Security Program lags far behind our increasing dependence on computers. Military Intelligence personnel are responsible for automation security policy, procedures and guidance. However, MI personnel in tactical units typically lack the training, expertise and support, both from commanders and other staff elements, to run a truly effective program. Commanders, and G2s in turn, tend to delegate automation security responsibilities to the lowest level that will meet regulatory requirements. Too often, the commander relies on a new lieutenant—and only occasionally on a senior noncommissioned officer who happens to be familiar with computers. The lieutenant, who becomes the local "expert," must identify security hazards, educate computer operators on proper security procedures and stop any operation that poses a security risk. The automation security officer must therefore monitor new systems *and* inspect all systems for continued compliance with Army security requirements.

AR 380-380, *Automation Security*, March 1987, is the automation security guide for Army computers and word processors. An effective automation security program must comply with this regulation

in its entirety. Although the Assistant Chief of Staff for Information Management manages the overall automation program, the Deputy Chief of Staff for Intelligence develops the Army Automation Security Program. He verifies compliance with security directives and maintains knowledge of current security technology. Additionally, he manages "the development of guidance for the automation security and information security aspects of automation security with the advice of officers having related responsibilities." The program also provides the security accreditation authority for all Army systems. AR 380-380 requires that every computer undergo a detailed security risk analysis and receive written approval to process specific types and classifications of information. No computer can operate legally without accreditation, unless a determination of non-sensitivity is made. However, until we develop an effective method of tracking all our systems, we cannot verify policy adherence.

Tasked with enforcing AR 380-380 policy, our tactical automation security officers are, in most cases, self-trained after their appointment as a terminal area security officer or as an automated data processing system security officer. Formal training courses are rare, and certainly no amount of classroom instruction can remove a complete lack of practical computer experience. The MI Officer Basic and Advanced Courses introduce students to computers with a lecture on the development of automation during the past 40 years. The two courses also provide an overview of automation security: The responsibility is ours; it is an important responsibility that will require us to become computer literate. The most helpful instruction

focuses on the Microfix computer. Hands-on practice with a representative intelligence system tends to eliminate most fears associated with the operation of computers in general. By no means, however do they produce trained automation security officers.

Upon receiving orders as an automation security officer, the MI officer should study AR 380-380, the most readily available guide to the essential "do's and don'ts." Its many acronyms and technical terms, however, will confuse the novice. In addition, AR 380-380 leaves many requirements open to interpretation. The automation security officer must go beyond what AR 380-380 states and determine the intention of the regulation. Ultimately, he must enforce practical and cost-effective security practices.

Within USAREUR, the security program manager from the office of the Deputy Chief of Staff for Intelligence attempts to fill the regulation's policy gaps with clarification messages. Whenever a problem arises in more than one subordinate command, the security program manager disseminates a specific policy message that takes affect USAREUR-wide.

A primary disadvantage with the policy message system is that not every command retains, or even receives, every message. When automation security officers transfer to new jobs, they leave behind files which may be complete, but not necessarily easy to use for the untrained newcomer. AR 380-380, plus files with dozens of policy messages, can easily overwhelm a new automation security officer. Policy messages do clarify specific problem areas, but a supplement to AR 380-380 would solve the overall problems—lack of clarity and detail—with the basic regulation. The USAREUR security program manager has planned to publish a supplement to alleviate these existing problem areas. Currently, the policy messages continue to be disseminated and warn us of existing and potential problems.
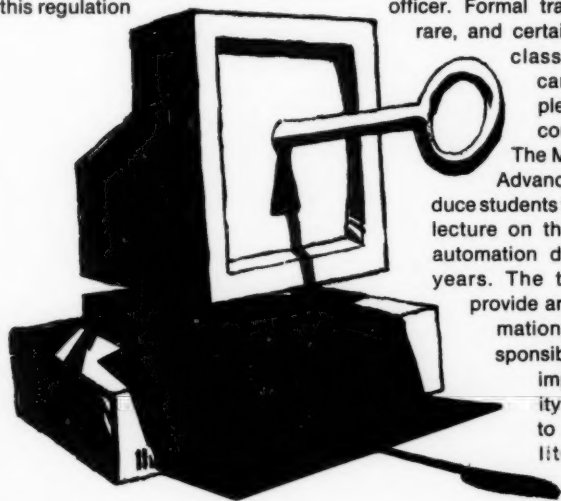
If AR 380-380 and policy messages overwhelm a new automation security officer, he can consult the installation security program manager for assistance. As the systems security manager for Headquarters VII Corps, I found that the USAREUR security program manager, a civilian computer security specialist, could readily answer almost any question. The civil service computer security specialist (job series 080) understands computer operations as well as security requirements. They fill authorized slots in certain commands, while other commands must complete manpower surveys (schedule X) to justify the slots they need.

"Someone must inspect computer systems, monitor operations and actually bring automated data and word processing to a halt when it poses a risk to security."

Besides assisting inexperienced security officers who work with automation security only as an extra duty, civilian computer security specialists ensure the success of the automation security program for several reasons. First, civilian retention status in one position enables the acquisition of institutional knowledge. Secondly, civilians can work on security programs full time, unmolested by periodic field exercises and additional, highly prioritized duties. Finally, civilians hired as computer security specialists are computer security experts, based on experience.

We see, then, the need for a trained computer security specialist with the expertise, time and inclination to run a meaningful automation security program. However, the computer security specialist cannot do the job alone. Since automation security combines all areas of security, the computer security specialist finds that he must have the active support of other staff elements. Automation security includes the areas of traditional counterintelligence interest: information, personnel and physical security. It also focuses on communications, hardware and software security. And finally, AR 380-380 defines and incorporates two new areas of responsibility: environmental factors (potential damage from fire, water, wind or earthquakes) and procedural secu-

rity (management, software design, accountability procedures and security of automated data processing files, tapes and discs). The AR 380-380 Automation Security Checklist, Appendix H, covers most areas of security in detail. In assessing the security of a computer or computer facility, the security officer should be qualified to verify the answers to questions as complex as the following: Does your operating system have built-in protection to prevent bypassing of security utilities and unauthorized access to data? Hopefully, the answer is yes and the computer operator can explain the features of his system. If not, most security officers will not be able to tell the computer operator what his system must have to meet the requirement. The security officer must rely on the particular staff element, in this case the Information Management office, with knowledge of computer software.

The requirement to form an Automation Security Committee at every post and installation is therefore one of the most needed changes included in the current regulation. The creation of this committee acknowledges the fact that automation security officers cannot run the Army Automation Security Program alone and draws together experts in all areas. The suggested members include the post, installation or headquarters systems security management chairman, automated data processing system security officers and management personnel for each computer or computer facility, the provost marshal, the facilities engineer, an installation security officer, and a signal security specialist. The committee calls for a large number of MI personnel, but it also enlists the support of technical experts in each of the many areas of the automation security program. Like the civilian computer security specialists, the committee can ensure that we have an effective Army Automation Security Program.

As we take a closer look at the shortcomings in our existing automation program, we see that the lack of training and support from other staff elements is perhaps the biggest problem. Fortunately, the hiring of computer security specialists and the new requirement for an automation security committee at each post and installation is beginning to eliminate this problem. Command emphasis, however, continues to be minimal. For this reason, the

Army Automation Security Program must become an area of Inspector General interest. The intelligence oversight inspections, which the secretary of defense directed this fiscal year, included automation security checklists. The oversight inspections helped tie in automation security with the traditional CI inspection. They also gave automation security, if only for a few months, the attention it requires. Ideally, the oversight inspections convinced commanders, automators and G2s of the importance of a good automation security program.

With all the problems associated with automation security—including, most importantly, lack of interest—we begin to wonder why The Deputy Chief of Staff for Intelligence retains proponency for automation security, while The Assistant Chief of Staff for Information Management—with the real computer specialists in the Army—manages the rest of the Army automation program. Despite ongoing controversy from Department of the Army level down, the answer is surprisingly simple. The automators must have a security-conscious appointee monitoring their operations. Someone must inspect computer systems, monitor operations and actually bring automated data and word processing to a halt when it poses a risk to security. On our increasingly sophisticated, increasingly vulnerable systems, assigned security officers (with the support of computer security and other technical experts) must guard against the threat from environmental factors and especially from hostile intelligence services. Our national security may be at stake.

In summary, we need to take a closer look at the following considerations for the Army Automation Security Program:

• Create training opportunities for the MI officers and noncommissioned officers who assume automation security responsibilities.

• Hire civilian computer security specialists with retainability to run the automation security program at all levels.

• Form automation security committees at each post, installation or headquarters to gain the active support of all staff elements in every area of automation security.

Totalitarian Revolutionary Warfare

by Peter Bahnsen and Capt. William H. Burgess III ©1986 Peter Bahnsen and William H. Burgess III

The 12 principles enunciated here apply to U.S. allies who are in revolutionary situations and request U.S. assistance in meeting the diplomatic, economic, psychological and military challenges of revolutionary warfare. These rules apply to situations in which the revolutionary struggle is protracted and the overall likelihood of armed U.S. assistance is extremely small. As in all such cases, these rules are merely guideposts for nations struggling to divine the strengths and weaknesses of American political, military and economic support.

Rule 1: World opinion is a critical factor. It holds the United States to a higher ethical standard than any other nation in the conduct of international relations.

World opinion demands ethical consistency between the foreign and internal policies of democracies but applies no such standard to totalitarian states. Thus, while the U.S. release of an innocuous field manual to guerrillas fighting for pluralist democracy in Nicaragua triggered an international uproar over this alleged contribution to human rights abuses in guerrilla-held territory, the critics are muted on the matter of the application of Soviet-supplied chemical weapons in the Vietnamese campaign of genocide against the Laotian hill people. Nor are the critics as vocal about the assassination of South Korean government officials in neutral Burma by North Korean commandos as they are about the nonlethal use of U.S.-manufactured cattle prods by the South Korean police in confrontation with violent demonstrators.

Perhaps a major factor in this phenomenon is that a free press, fundamental to a democratic society, is separate from and will not align itself with the democratic government in matters of perceived government abuse. The press in a totalitarian state is a loyal servant and cannot print fact or opinion about the more bestial aspects of its masters. In democratic states, the entire news media is a major conduit through which the opinions of the people are impressed upon the government. In totalitarian states, the press serves the opposite role of being a conduit through which the opinions of the government are impressed upon the people. For these reasons, world opinion matters to U.S. policymakers, and such opinion exhibits bias against the United States and other democracies. U.S. allies must also, therefore, consider the context of world opinion in assessing the potential or actual role of U.S. assistance programs.

Rule 2: Total and protracted struggle is fundamental in internal defense.

In foreign internal defense, the total internal and external defense matrix must be addressed over time. This matrix includes conventional military confrontation, economic warfare, psychological warfare, international political struggle and terrorism. This total struggle follows different rules in societies which aspire to democracy and those which are totalitarian.

Democratic states must abide by a rule of law, derived from Western Humanism, in the conduct of internal and foreign affairs. Totalitarian societies abide by a different rule of law. Rule in democratic societies is by law developed through consensus. There is deep felt concern for individual human rights, and there is a common sense of private immunities from governmental intrusion. The totalitarian societies are ruled by draconian decree. The needs of the individual are not well regarded, and state policy dictates that no one is politically innocent. Because of these differences, the use of terror (including assassination of domestic and foreign political adversaries) and the taking and abuse of political prisoners are acceptable to the totalitarians. Negotiation and coalition (accommodation) are one-way streets: A country which is in the midst of revolution and believes that totalitarians negotiate in good faith is doomed to extinction.

Totalitarians thus engage in unrestrained, total struggle. They are free to use tactics that cannot be duplicated or fully countered by a democratic adversary. They know that democratic states cannot advocate terrorism and that assassination is proscribed by laws and ethical precepts.

Thus, an aspirant democracy undergoing attack from the totalitarians must realize that the enemy will wage total war. At the same time, the aspirant must take note that American largesse has ethical strings that limit the range of options otherwise open to the aspirant and practically dictate protracted response to totalitarian onslaughts from within and without. Furthermore, these ethical constraints and the manner in which totalitarians wage war demand that the attacked engage in two revolutions at once. There must also be a political-social struggle against social inequities, corruption and other social ills feeding the totalitarian fire.

Rule 3: Psychological operations (PSYOP) are the battleground in internal defense operations.

The key terrain in a national insurgency is the populace. The ultimate strategic target of insurgency is the collective mind of the populace or the "national will." Similarly, operational and tactical targets are the minds of operational and tactical leaders of the opposition, including members of the U.S. Congress who pass on specific foreign aid requests. A successful psychological attack can be decisive, for once the leadership or the general populace is convinced that further conflict is futile, or that the current government has lost the mandate to govern, the war is over. When sanctuaries exist and the psychological will to exist as a nation remains, revolutionary war is never over, regardless of who controls terrain. It is therefore wrong to view PSYOP as just one of the tools used in internal defense.

Every action or reaction by the government affects its ability to maintain the

direction of the national will and, thus, the eventual outcome of internal conflict. Although the use of propaganda has a pejorative connotation in some circles of the U.S. government and the American populace at large during times of "peace," Americans have made extensive and highly successful use of PSYOP during national emergencies such as the American Revolution, the Civil War and World War II.

Rule 4: Control of borders must be established.

The domino theory that originated in the post-World War II conflicts in Southeast Asia was based on the inescapable fact that a government that cannot control its borders cannot control its country. The Soviet Iron Curtain and the Berlin Wall attest to the realization of this by Communist authorities. The lack of border control directly contributed to the fall of pro-West or neutralist regimes in Laos, Cambodia and South Vietnam. The present conflict in El Salvador is exacerbated by a classic lack of control over that country's land, air and sea boundaries.

Successful border control is more easily written about than practiced. There are, nonetheless, several historical examples that may be helpful for a nation facing revolution fostered from across its borders. As British experience in Malaya and Northern Ireland show, extensive patrolling, tracking, close surveillance and ambushing can make even the densest forest or thickest jungle a practical and psychological barrier for infiltrators. The judicious integration of ground, maritime and airborne electronic sensors, secret agents and informers on both sides of the border with the ground forces can potentially create a seamless web through which the infiltration of personnel, supplies and equipment for insurgents will be extraordinarily difficult.

Rule 5: The soldier and the militia must work with the people to develop the required intelligence and empathy.

In revolutionary war, the normal divisions between the military and the general populace are easily worsened. The military is classically organized, trained, equipped and deployed to close with and destroy conventional enemy military formations. A classic mistake in counterinsurgency is to escalate a police response to a military response.

Often grievous excesses occur when the enemy is intermingled with the civilian population, including the death or injury of innocents, which can decisively polarize the military and the populace it is supposed to protect.

Civic action projects can bring the military and the populace closer together in common cause, where the military aids the civilians in building needed schools, roads and other projects of long-range effect. The impact of this effort adds to the total mobilization of the society behind the government. The priorities of civic action projects must be those perceived by the populace at the local level and not those of a faceless bureaucrat or military commander. What appears important to the bureaucracy and the military may be at variance with local sentiment.

Rule 6: Active involvement of the people with the government must be organized to the last individual, or the guerrillas will organize the people against the government.

Democracies, with their emphasis on individual freedoms, often fail to appreciate the principle of "total organization," by which totalitarian revolutionaries seek to involve the masses in their struggle. Democratic societies tend to draw circles of organizations that omit the masses. Lack of appreciation of this principle is a grievous error in some past U.S. attempts to train and assist counterinsurgency forces. Witness the failure to mobilize the South Vietnamese until very late in the war. The entire population must be organized (but not necessarily militarized) into an interlocking counterinsurgency effort, from active duty, national armed forces to village constables and militia and from the highest circles of government to the simplest patriotic volunteer organizations.

The democratic or near-democratic state must develop its own leadership and expertise that is beholden to the central government, lest it fall prey to the tendency of some states under pressure to rely on foreigners. Development of in-country leadership and expertise is essential to the successful mobilization of the masses. The emergence of President Duarte, for example, as a genuine political leader in El Salvador has been essential to inspiring average Salvadorans to support government counterinsurgency efforts.

Rule 7: Maintenance of the social order requires effective population control. All democratic states must suspend some rights during revolutionary war.

Totalitarian insurgency is designed to destroy the very fabric of the societies attacked. A government under attack must therefore establish total accountability of the entire population and resource base to successfully detect insurgent activities and to preclude insurgent parallel organization. Rationing, block wardens and family census taking are some measures used to ensure people and resources are available to the government's counterinsurgency effort and not to the insurgency. Such measures will undoubtedly raise objections from some members of the Western democratic leadership and from the media. The history of democracies, however, is replete with suspensions of civil liberties during national peril. A classic example is the suspension of habeas corpus during the Civil War by President Lincoln.

Effective population control requires community-conscious police. At present, legal restrictions make it very difficult for U.S. money, equipment and personnel to be applied toward the building of more effective foreign police organizations. Effective police forces who are sensitive to human rights are essential to preservation of the respect and integrity of the government in the eyes of the people. Where they fail, insurgent "revolutionary justice" and vigilantism may prevail.

Effective population control, however, can lead to the establishment of rightist dictatorship, which in and of itself may boost the popular support of an insurgency. An incorporated system of checks and balances will ensure fair, open and supported population control. One method of accomplishment is to have an independent judiciary with the power of legislative and administrative review and a real and enforced bill of rights, so that government control is kept to a minimum consistent with the threat.

Rule 8: Once an insurgency starts, a leader must achieve a more equitable economic/political order to avoid reliance on brutal repression as the only option.

Monopolar development of many Third World countries has lead to sharp stratifications characterized by the emergence of three distinct classes: a wealthy

oligarchy in control of the country, a small middle class sometimes composed of a high percentage of foreign entrepreneurs, and an extremely large peasant class. A prime source of strength for revolutionary discontent is awareness of the resultant inequities among the masses. To remove this main resource of the insurgent, the leaders of the country under attack must redistribute wealth and generate new sources of income, so that a greater number of people come to have a stake in the government.

Leaders are thus forced to ease the barriers of class and to promote egalitarianism. Often, the government must attack the interests of the rich (often their natural supporters). Leaders who do not pursue some course of corrective action may be forced to rely on brutal repression of the populace and will ultimately be defeated by the resultant reaction.

The leaders must also create industry that produces goods from local labor and raw materials that will be consistent and successful sources of revenue. Careful market planning and some government oversight are necessary to ensure that the revenues derived are properly distributed. The wrong social cures, or the correct social cures poorly pursued, can destroy a government.

Rule 9: There is no long-term planning without long-term funding.

The leadership of a country threatened by insurgency must rely on internal resources which can be committed over the long term. The efforts of Guatemala and Israel illustrate the success of a counterinsurgency campaign relying on internal resources and guided by long-term planning.

Rule 10: Do not allow military leaders to request and do not accept military equipment which cannot be economically supported.

There is a pronounced weakness among the military hierarchies of some Third World nations for high technology weapons. Sophisticated military technology is counterproductive in counterinsurgency for two reasons: level of technology and prohibitive cost. Such hardware is usually designed for general war among militarily advanced nations and is too sophisticated for low intensity conflict. Where the insurgents are intermingled with the popu-

lace, the overall effectiveness of a jet fighter-bomber is questionable at best. Also, the investment in such weaponry and the associated, long-term maintenance and support expenses deprive the purchase of more basic weapons and equipment. In lieu of supersonic jet fighter-bombers, a nation undergoing revolution may consider, as an alternative, investing in AC-3 "Puff" gunships.

However, a nation should never sacrifice quality for alleged "cost-effective" purchasing. Standards of performance, as derived from mission requirements, should be paramount over unit price and appearance.

Rule 11: Visible foreign presence is counterproductive in a strategy of protracted defense against insurgency.

The government of the nation under attack must visibly maintain control of the counterinsurgent effort. The populace does not view foreign advisors as mere advisors; they tend to exercise foreign control. The appearance of foreign advisors on the battlefield or in garrison is especially counterproductive and should be kept to an absolute minimum. Foreign advisors and "liaisons" should maintain very low profiles, and the host government must insist that all such advisors enter their country language and culture qualified. Israeli assistance to nations in Africa and Latin America is a model of the invisible foreign presence.

The very term "advisor" engenders blame for errant actions of the "advised," even when the advisor should not be held responsible. It is more than a semantic difference. Several times during the U.S. involvement in Vietnam, for example, opponents of U.S. policy in Southeast Asia connected improper conduct by South Vietnamese troops to U.S. advisory personnel. Where such a real or conjured nexus can be created, tremendous psychological and political forces can affect the U.S. decision-making process. Advisors should perhaps be replaced with trainers, thereby emphasizing the responsibility of the trained and avoiding the more immediate responsibility of the consultant-advisor.

Rule 12: Get trade, not aid.

Extended aid to any country engenders resentment and ultimately hatred. Good examples of half-hearted and counterproductive "handout diplomacy" abound in Africa, Asia and Latin

America. To ensure lasting relationships, the involved countries must nurture mutually beneficial economic policy. A successful relationship cannot be centered on industries vulnerable to cyclic depression or minority exploitation. Ardent supporters of a government confronted with insurgency are often found among enriched social groups, whose prosperity is based on the exploitation of single resources. Diversification of sources of trade and ownership may thus be a condition precedent to economic and social success.

The preceding rules are intended for U.S. allies bewildered by the challenges of revolutionary warfare and U.S. political, military and economic support. They are meant to guide allies who are loathe to trust the fate of their nation to foreigners. Through such guidance, more effective and efficient relations may be formed between the United States and nations on the front line against totalitarianism. ★

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Integrating Battlefield Surveilla

by Capt. William M. Susong

Regardless of the intensity of future conflicts, the creative and appropriate use of battlefield surveillance assets, particularly ground surveillance radar (GSR), is critical to the survival of U.S. maneuver task forces. Yet, operational units repeatedly establish defensive positions with little regard for continuous vigilance. The perception that infantry or armor battalions are forced to operate without intelligence resources is erroneous. Despite arguments to the contrary, ample resources exist to collect for and protect the maneuver battalion. The misconception is the result of unassertive management of intelligence capabilities.

The GSR section is composed of two AN/PPS-5B radar teams of three men each, plus a section leader. Among the resources available for collection of intelligence are the maneuver battalion's reconnaissance platoon, listening and observation posts, line company patrols and tactically exploitable human intelligence.

Periodically during deployment, the GSR commander will rendezvous with the GSR section leader to discuss the progress and problems encountered by the section while supporting a designated task force. When attached to combined arms units during field exercises, all participants receive the benefits of task organization and are thus able to work through problems which will inevitably arise.

Unfortunately, the same problems seem to occur continuously. An experienced section leader will usually receive an incomplete operations order and will consequently lack sufficient time to reconnoiter the sites and report findings to the S2 prior to nightfall. The first night of surveillance is further frustrated as the GSR radio operator is often not recognized by the command and consequently "run off net" before he can pass critical spot reports. The following scenario is not so far from the truth:

Dawn breaks, the GSR moves into a covered and concealed position a few meters into the tree line and discovers the forward line of own troops has moved. Then, after a fevered search for the battalion tactical operations center, the GSR section is rewarded with a cold dinner and a reprimand for failing to maintain contact with the S2.

Finally, the GSR team performs perimeter security during daylight hours and is refused fuel or maintenance support since they are not part of the task force.

This fictionalized narrative illustrates the treatment frequently received by GSR teams, as well as other intelligence assets assigned to maneuver task forces. Yet the situation is not as one-sided as one may be led to believe. No character in this "comedy of errors" is guiltless.

First, the GSR commander allowed the misuse of the radar teams. The S2

was apparently unfamiliar with appropriate GSR team employment and was likely convinced by the operations officer to use the teams in a security role. The line company commander had all the combat assets he could handle without the addition of another.

How does the divisional intelligence community solve these particular problems which are unique to the utilization of CEWI assets, including ground surveillance radar? The consolidation of all GSR assets, as a result of the CEWI configuration, is a mixed blessing. Standardized training is provided as a result of co-location. Also, the G2 reconnaissance and surveillance officer is provided a single point of contact for tasking and equipment status.

On the other hand, the maneuver battalions are not familiar with the capabilities and equipment of the teams. The maneuver battalion S2 is usually unfamiliar with the personalities of the radar section, and consequently cannot readily query the GSR section sergeant as to their employment or doctrine. The S2's knowledge of the capabilities and utilization of the GSR and his aggressive advocacy of its use is critical. He must realize that the GSR section can be manipulated to satisfy priority intelligence requirements. The S2 is the proxy GSR platoon leader. This "platoon" consists of the two GSR teams, company observation and listening posts, company patrols and the battalion reconnaissance platoon (scouts).

The scout platoon is not a personal asset of the maneuver battalion commander. The *intelligence officer* should control the only truly organic intelligence asset within the battalion. The GSR section and the scout platoon complement each other thoroughly if controlled by a single source.

The S2 must insist on control of the scout platoon. The potential professional dividends from innovative and aggressive utilization of the scouts, GSR and other collection assets are considerable. *The limit of one's authority is not known until exceeded.*

The basic problem with educating an S2 is ensuring that he is knowledgeable and confident in his utilization of the teams. At present, the best solution is continuity. Steps must be taken to ensure the same personnel, especially the GSR section leader, repeatedly support the same maneuver battalion. The S2 can benefit from the GSR section leader's knowledge that is derived from field experience. Additionally, the GSR company commander is charged with providing assistance to the battalion command and staff by conducting informal classes on the equipment and its proper utilization.

As the education process is ongoing, the S2 must adhere to basic guidelines for GSR employment. Doctrine and tactics are defined in TC 30-28 and FM 34-10. Yet the inherent independent nature of the GSR teams allows for great flexibility in mission employment. Specific elements of information that the GSR teams need in order to operate are not always spelled out; it is incumbent on the battalion S2 to fully brief the section leader. The detail provided in the battalion operations order is not sufficient to inform and target all collection assets. The S2 has amassed the facts needed by the GSR section in his intelligence estimate. The intelligence officer must ensure the GSR teams are given guidance unique to their mission. Regardless of the type of mission, certain critical information must be provided to the teams in a subsequent operations order.

1a. ENEMY SITUATION. In providing this guidance, adhere as closely as possible to the standard operations order format for simplicity and ease of assimilation. First, the radar teams must be advised of the position of the enemy frontline trace and of the vehicle types likely to be encountered forward of each radar position. To prioritize coverage, the primary, secondary and possible avenues of approach must be detailed. To protect the teams, a briefing on the most recent enemy activity in their proposed sectors of coverage should be provided.

1b. FRIENDLY SITUATION. Beyond the information provided on friendly dispositions and schemes of maneuver, the GSR teams must be aware of any friendly movement beyond the forward line of own troops. Knowledge of the locations of task force kill zones, secondary battle positions, and preplanned artillery will become crucial if friendly forces reposition rapidly.

2. MISSION. Although it may sound simplistic, the section leader must know if the primary mission is to be point radar surveillance, sector scanning or vectoring. Each mission demands different implied tasks for the teams. Additionally this information provides the section leader with prioritized guidance for decision making.

3. EXECUTION. Much to the relief of the S2 and the credit of the section leader, only the general area for positioning the radar sites (prominent terrain feature) need be given to the GSR teams. The teams will precisely locate their equipment and report the positions to the S2. In consultation with the teams, the left and right limits of radar scan must be established to ensure overlap with adjacent task forces and ensure coverage over terrain critical to the task force's defense. Identification of a brief yet specific reporting format and reporting schedule will ensure timely transmittal of spot reports while minimizing transmission time.

4. SERVICE SUPPORT. The GSR section leader must make face-to-face arrangements for logistic support and establish exact procedures. If known in advance, tentative times and locations for task force tactical operations center movement will ensure the GSRs and the command and staff elements stay on the same side of the FLOT.

5. COMMAND AND SIGNAL. The GSR teams need to be aware of anti-jamming frequencies and scheduled frequency changes.

Ideally, the GSR section leader will receive his specific guidance during the task force's operations order brief. This will allow the team leaders sufficient time to reconnoiter and brief the S2 on pre-selected sites. At an absolute minimum, time must be provided for the teams to reconnoiter the radar sites prior to darkness. As a platoon leader, the S2 must assume all the leadership and administrative responsibilities that type of position entails.

The GSR personnel must be kept abreast of any changes in the operations order or the task force mission. Without current information, the GSR teams cannot provide the S2 with timely, accurate combat intelligence.

The S2 must fill the logistical needs of the team and take a genuine interest in the welfare of the GSR personnel as well. A forsaken GSR section tends to exhibit less than total dedication to the task force mission and less than optimum performance.

The headquarters company mainte-

nance section provides support for the GSR team vehicles. To ensure continued maintenance support, the S2 must maintain a working relationship with the headquarters company executive officer and company commander.

On the occasions the GSR section is placed under the operational control of a company commander, extreme care must be taken as this is not an ideal situation for any of the elements. First, the S2 is not relieved of responsibility for the GSR team during this period. This configuration can provide an egress from responsibility for the uncertain or apathetic S2, but more importantly, the GSR team is placed in a position for potential abuse through neglect.

In addition to articulating the operations order to the GSR section, the line company commander should be briefed by the S2 to answer any questions prior to attachment. If the GSR team reports targets directly to the company commander, the S2 must monitor the company frequency to remain abreast of the battle and maintain contact with the teams.

The GSR cannot become a burden to the company commander. The GSR team leader is responsible for remaining as self-sufficient as possible. As noted before, the task force commander has a full complement of assets to manage. The GSR must be presented as a combat multiplier which makes minimal demands on the line company. The GSR can provide rapid and accurate information to alert the task force's anti-armor, armor and indirect fire support.

Regardless of the mode of employment of GSR sections, the integration of the radars with the scout platoon becomes the keystone in battalion intelligence gathering. The importance lies in the manner in which the two systems complement each other. The reconnaissance platoon is effective at gathering detailed information over a relatively small area. The GSR section reconnoiters several thousand meters in a matter of seconds but at a low level of resolution.

A powerful asset is formed when these two systems are combined. The scout platoon moves across the FLOT to a tentative radar site. Sweeping across the site, the scouts find a position tactically acceptable. The GSR team is called forward under the protection of the scout's TOW section. Upon occupation by the radar team,

the battlefield is surveyed. The scout platoon moves forward under the gaze of the GSR, after it is declared free of enemy movement; the radar is now capable of notifying the scouts of future enemy movement to their front.

Ground surveillance radar provides point monitoring of high speed avenues of approach, as well as surveillance of large spans of open terrain during periods of limited visibility. The reconnaissance platoon offers mid range coverage and a means of collecting detailed information on specific points of the battlefield. The scouts can tip off the GSR to areas of potential enemy activity. The GSR can vector the scouts through difficult terrain, while the scouts can reconnoiter dead space created by the masking of the radar beam across terrain features.

Since there exists the potential for misidentification of movements forward of the friendly frontline trace, the S2 must control and know the location of the scout platoon and the exact sectors of coverage for the GSR teams. If the GSRs are not able to monitor the net on which the scouts are reporting, a situation may arise when the radar operator will not be able to distinguish between friendly and enemy. All incoming spot reports from the GSR team, therefore, must be carefully analyzed by the S2 to avoid catastrophic mistakes.

Patrols serve a two-fold purpose. They ensure exhaustive information on a specific objective and assist in local security. Also, the patrol serves a limited, in scale, reconnaissance mission. When the patrol is productive, the combat arms commander becomes more attuned to the worth of tactical intelligence.

Observation and listening posts afford pinpoint coverage of terrain to the task force commander and intelligence officer. An asset which is easily controlled and emplaced. the observation post is

as effective as the GSR during periods of unlimited visibility. The individual soldiers placed at this post concentrate on a fixed area of small size but survey the area in minute detail. The major disadvantage is that the enemy has already moved into close proximity to the defenses by the time he is under observation. Also, the position of the post is fixed, restricting the soldier to report on only those targets that move into his field of observation.

When the enemy moves into the area of observation the soldier can detail the enemy's physical condition and any peculiarities, such as wearing of NBC equipment or unique weaponry. The same is true of observation of enemy vehicles. The wealth of information which is collectible from listening posts and observation posts serves to identify the location of elements of the enemy forces in sufficient detail to be targeted and brought under fire by friendly forces.

Again, the potential for collecting critical intelligence by means of battlefield surveillance cannot be overstated. While these illustrations represent optimum positioning of assets, an effective and manpower-efficient surveillance barrier can be constructed with minimal external intelligence support. With various exercises and experimentation, integration of assets will gradually take shape. Generally, the abuse of intelligence assets is due to a lack of knowledge about CEWI battalion collection systems and how to incorporate them at the task force level.

The surveillance and reconnaissance assets of the maneuver battalion are adequate. Problems arise when they are overextended or used by uninformed taskers. Either mistake yields the same results—a gap in intelligence and a physical gap in the defense of the unit. In the dynamic and lethal battlefields of the future, the maneuver battalion could find itself isolated from both logistic and intelligence support. Self-sufficiency quickly becomes the key to survival and success. ★

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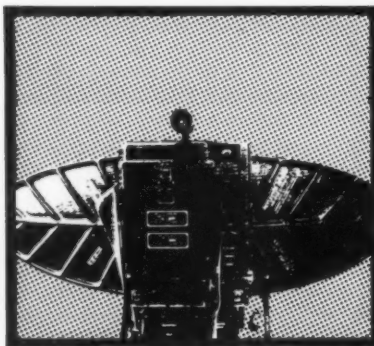
Special Forces Signals Intelligence

by Capt. Bill L. De Witt

The Army's primary objective is to fight and win battles, large or small, against any foe, at any location. U.S. Army Special Forces are designed to meet a special challenge to help accomplish this objective. An equally special mission exists for unique organizations within the Signals Intelligence community to support special forces.

The mission of special forces is to plan and conduct operations in unconventional warfare, special operations, foreign internal defense and stability operations as directed by the National Command Authority. An element that is critical to understanding the complexities involved with this mission can be stated in one word, "worldwide." Social, economic and political interests vary depending on the locations of the missions. For this reason, special forces are divided into groups: 1st, 5th, 7th, 10th and eventually, 3rd. Each group is charged to provide support to specific geographical areas.

SIGINT support to special forces is provided by the Combat Electronic Warfare Intelligence (CEWI) Company. Within the company exist the following elements: Headquarters, Signal, Mission Management and Dissemination/All Source Production (MMD/ASP), Counterintelligence/Interrogation of Prisoner of War/Signal Security (CI/IPW/SIGSEC), and Support Operations Teams.

Headquarters platoon provides standard support to the company, which is commanded by a major who possesses SIGINT/EW experience.

The signal platoon provides communication support for the company assets. This platoon has radio teletypewriter equipment and a repair element.

MMD/ASP, the company's all-source management and processing section, is the nerve center for tasking and processing intelligence information in support of the group's mission.

CI/IPW/SIGSEC platoon provides HUMINT, interrogation and signal security support for the company and the group.

Support operations teams are divided into three "B" elements, each consisting of six "A" elements. This is the SIGINT effort for the CEWI company and special forces group.

Support Operations Team Bravo provides operational support and guidance to the Support Operations Team Alpha. Bravo teams will be located at the special forces operations base, which is similar to a special forces tactical operations center. Support Operations Team Alpha will be deployed forward to provide Electronic Warfare support to special forces Alpha Teams before, during and after deployment into an area of operations.

The CEWI company supporting the special forces group has a solid base to accomplish the mission. Each Support Operations Team Alpha is comprised of six personnel, which has proven to be adequate for the mission. The distribution of officer and enlisted ranks is established; however, the actual fill for the slots is driven by availability and the special forces group commander's priorities. The CEWI company internal structure is flexible and is directly controlled by the company commander with guidance from the special forces group operations officer.

Military occupational specialties (MOS) composing Team Alpha come from the SIGINT discipline. Though the SIGINT personnel are trained in intercept (voice and direction finding, and manual morse), most within the detachment do not carry other additional skill identifiers.

The group operations officer and personnel officer will allocate missions and personnel based primarily on their individual knowledge of Team Alpha capabilities. Exceptions to this condition are requirements directed by their superiors. Tasking, during specific conditions, will be forwarded through the group to Team Alpha from echelons above corps.

There are special intelligence billets (positions) within the special forces group. The majority of the billets are within the CEWI company and Team Bravo.

Special forces mission success requires special psychological and physical demands from their personnel. Equally, EW missions require special profiles from their personnel. Ideally, personnel with combined abilities, such as traffic analysts and manual morse operators, are utilized. However, to gain a practical understanding of the

> **"When deployed, the Team Alpha member will be required to carry from 90 to 120 pounds of equipment."**

special forces mission, Team Alpha personnel should possess the same skills as a special forces operator. For example, the equipment presently utilized by Team Alpha includes the TRQ-30 receiving set, PRC-70, PRC-90, PRD-10 and PRD-11. Expendable jammers include a burst, HF-secure system and sensors which are used for security/early warning. When deployed, the Team Alpha member will be required to carry from 90 to 120 pounds of equipment. This presents a potential problem, since most Team Alpha personnel are oriented toward the field station environment, are not special forces-trained, and lack the requisite physical capabilities.

The following suggestions are offered, to provide potential solutions to some of the more visible problems encountered by intelligence personnel assigned to special forces units:

• Team Alpha personnel must be able to utilize specialized direction finding equipment, intercept and jamming equipment.

• Selection and retention of qualified intelligence personnel is critical for the successful accomplishment of the special forces/SIGINT mission.

• A fix on personnel is needed to ensure the continued level of required training and institutional knowledge indigenous to the special forces mission. When a Team Alpha member is assigned to a special forces unit, he will remain for the normal tour. Upon rotation, that individual will return to the SIGINT community and not to special forces. This problem is Army-wide in many fields.

• Special forces commanders will often require Team Alpha to be attached to A teams, which could result in the misutilization of Team Alpha personnel. SIGINT communications personnel are more highly trained than special forces communicators. A team commanders frequently utilize Team Alpha personnel as A team communicators rather than allowing them to perform their actual jobs. Team Alpha personnel will carry classified items and are therefore the most susceptible to capture and injury because of the greater weights carried. Combining the special forces A team mission with the Team Alpha mission automatically ensures the potential for dual compromise. Team Alpha must operate independently to accomplish their mission.

• Some special forces group and battalion commanders have a misconception concerning the military intelligence community. Correct utilization of MI assets is often overlooked. The resultant "tunnel-vision" approach side-steps the fact that the MI mission is a tremendous combat multiplier for the special forces. Team Alpha personnel should be carefully selected and rigorously trained for the special forces mission. "Tunnel-vision" will not exist if this parallel relationship can be established between special forces operators and Team Alpha.

• The equipment utilized by Team Alpha must be light. Lighter equipment will help to solve the physical shortfalls between Team Alpha and special forces. Research, test and development efforts to fix this problem have not been completely successful. There is, however, a new HF/VHF intercept, line of bearing system planned to be fielded in 1988. The system will weigh 25 pounds.

• HF is not a critical requirement for Team Alpha and it can be manipulated remotely. This mission can be accomplished from the special forces operating base. Short range VHF, direction finding and jamming is critical for Team Alpha.

• Remote jamming capabilities should be expanded. Expendable remote jammers would contribute immensely to the accomplishment of the special forces/SIGINT mission.

• The systems should be hardened to withstand special forces operations. Though an expensive proposition, the alternative is more extensive repair and maintenance of fragile equipment that must be able to withstand hard jolts, variations in the weather, and long periods of storage. This is a strain on any equipment.

• Power requirements will allow Team Alpha members to operate over long periods of time. Batteries and generators must be light and durable. Research indicates that small powerful batteries are in development.

• Secure communications and a non-specific system are required. Burst transmissions are fine; however, within the U.S. military, this communications technique is "system specific." Since special forces is one of the only organizations utilizing it, enemy intercept of burst indicates probable special forces

operations.

• Deployed teams do not need extremely sensitive equipment. The majority of the missions will require short range VHF intercept. Also, equipment will require first time line of bearing with some additional enhancement for an accurate fix.

• All Team Alpha personnel must be special forces qualified. Training should include detailed emphasis in evasion and escape procedures, stay-behind operations, isolation planning, in-depth camouflage techniques, air drops, insertions, languages, liaison and survival skills. Remote jamming capabilities should be included.

• Kitchen demolitions (improvised) and conventional demolitions training would extend the capabilities for Team Alpha personnel, including the ability to destroy classified equipment quickly and quietly.

• Operations security is important, as the mission of Team Alpha will require personnel to deploy forward of special forces A teams. Any compromise of information will place a great risk on the deployed special forces A team.

The special forces mission requires SIGINT assets to meet the challenges of the modern battlefield. This requirement was tasked by Department of the Army based on an in-depth review of the national and ground commanders' needs during peacetime and war. The decision to create CEWI within special forces groups was made and assets were made available. However, when SIGINT operations became a reality, a misunderstanding developed between special forces commanders and SIGINT support capabilities. The challenge remains to solve the problems and resolve the MI/special forces conflict. ★

Low Intensity Conflict:
Are We Prepared?

by Lt. Col. Edward L. Constantine

The U.S. Army is not well prepared to fight in a low intensity conflict (LIC), even though it is considered to be the most likely scenario for the next war.[1] It is incumbent on U.S. Army units, regardless of mission, to take a hard look at being prepared for LIC.

In August 1986, in the 100-degree heat and dust of Camp Roberts and Hunter-Liggett Military Reservation in central California, elements of the 7th Infantry Division (Light) conducted the U.S. Army's first, full-scale, low to mid intensity conflict, division-level field training exercise. The main reason for Celtic Cross IV (CCIV) was to validate the Light Infantry Division structure. However, it also provided a unique opportunity to study the way the Army is training to conduct internal defense and development assistance operations.

The CCIV scenario called for the formation and deployment of a Joint Task Force (JTF) to a Third World country faced concurrently with a low intensity conflict and a conventional threat from a more powerful, neighboring Eastern Bloc-sponsored nation. I Corps was the Army force component headquarters and commanded the 7th ID(L) and the 311th COSCOM, a reserve unit, which was tailored to support one division. The 7th ID(L) was confronted throughout the exercise by a determined, well-trained and equipped insurgent force, composed of personnel from U.S. Army Special Operations units. The 2d Brigade, 10th Infantry Division (Light) commanded the conventional threat, which included two infantry battalions and an armored task force, along with combat aviation, combat support and combat service support elements.

The author participated in the development of the scenario for CCIV and supervised the execution of the opposing force's master events list and the dissemination of the scenario's intelligence reports. Numerous training and doctrinal shortfalls that were observed need to be addressed if Army forces are to be prepared to fight a motivated insurgent force. While not intended as a complete "how-to-fight" manual, the observations that follow are written primarily for Army units which have a counterinsurgency mission. Most of the field manuals from the Vietnam era have been lost and the lessons learned have faded.

Knowing the Enemy In a LIC Environment

Early on, commanders must realize that their G2s and military intelligence units are not able to acquire all the information that the commander desires prior to deployment.[2] This is due to the typically rapid escalation of conflicts in unpredictable Third World areas, as well as the resource shortfalls in those countries. Typically, in a LIC situation, the American Embassy in the country (if there is one) will not have the number or type of personnel needed to acquire all the requested data. The embassy's country team (Defense Attache Office, Chief of Station, etc.) will have neither the time nor, unfortunately, the inclination to respond to these requests. However, if present, the team members should be able to answer most of the questions on the host country's military, paramilitary and civilian police forces and the presence of U.S. citizens.

Generally, neither the host country nor the country team will have complete files on the insurgent force's organization, capabilities, equipment and intentions, and only in rare instances will anyone have conducted a detailed civil affairs or Psychological Operations (PSYOP) assessment of the country. There are simply not enough U.S. national intelligence community assets available, nor are these suitable for collecting the myriad of tactical intelligence data needed to conduct foreign internal defense operations. Compounding the problem of the lack of collectors is the matter of time. Unless the national intelligence community has been given the resources and the requirements to collect information on a given country prior to deployment, the commander is going to arrive with the majority of his intelligence questions still unanswered. Additionally, there may not be adequate maps available for conducting combat operations. The commander must plan for these gaps and send intelligence personnel, topographic specialists, linguists and PSYOP and civil affairs specialists with his early arriving units.[3] As always, it will be the troops under the commander's own control who will be the best collectors.

Even after deployment, commanders will realize that it will often take time to get all the answers on the insurgents and the country. Many Third World countries do not have efficient human intelligence or communications intelligence systems. Normally, they will not be able to penetrate the insurgent organization which is very conscientious about operations security (OPSEC). Additionally, the commander should be aware that the insurgents typically have fewer radios and employ them

more conservatively while having access to sophisticated, manually-encrypted, communications security techniques (e.g., operations codes) that the Army force's COMINT teams may not be able to break. Compounding this problem is the fact that, for many countries, the Army does not have the kinds or numbers of linguists required to answer the commander's priority intelligence requirements.[4] CEWI units will do their best to answer these critical questions; however, these units will not be able to solely cover the entire battlefield consistently. Their equipment must be placed to accomplish the Army force unit commander's most important tasks. To offset the limited number of MI soldiers, non-MI units must share the responsibility for locating the insurgents and for protecting the friendly force. Training on reporting procedures should be incorporated into exercises, courses and standing operating procedures.

Training Imperatives

The single most important training task for the commander is to ensure that his soldiers recognize the differences between the LIC environment and that of mid or high intensity conflicts. Soldiers must become completely familiar with the countries to which they must be sent, the populace and how and why the insurgent forces fight.

A major implied task in defeating the insurgent is to separate him from his base of support.[5] Soldiers must be taught that abused civilians will very likely turn into insurgent supporters. There is an even greater probability that these civilians will never become reliable sources of information. The Army force must be trained to handle enemy prisoners of war (EPW). Not only are there definite legal requirements as to how EPW and detainees should be treated,[6] there are also specific doctrinal procedures as well.[7] The G2 must determine the best disposition for his interrogator teams—keep them at the division MP cage, or if there is a lack of transportation within the division, move them to the forward MI company teams. The divisions and the brigades must have procedures to alert the G2 concerning the presence of high-value EPW, defectors or time-critical documents. There must be provisions for rapid transportation of these personnel or materials to a location where they can be quickly exploited.

Not only may these VIPs or documents have a significant tactical utility, they frequently have a critical psychological or diplomatic/political value.

Counterintelligence units must be better used. Typically, in a conventional conflict, guerrilla or terrorist activities are invariably downplayed as being only of CI or military police interest. This should not be the case in a LIC situation. CI personnel must become more involved in EPW interrogation and population and resource control efforts. Also, they must develop the ability to conduct low-level agent or informant operations. Most importantly, they must improve their ability to provide better support to the Army force's OPSEC posture.[8]

Another area that needs training emphasis is reporting. The problem is twofold: who reports, to whom and what is to be reported? The answer to the first question is that everyone has a reporting responsibility. The Army force must rid itself of the notion that reporting on the insurgents is the sole responsibility of the "formal" intelligence collectors.

The second question is harder to answer. The G2 needs to establish a "threshold" of significance. Unlike the typical, conventional, "two-levels below" criteria, LIC reporting is more situational. For instance, a three-man insurgent patrol observed near a forward area rearm and refuel point could be of more immediate significance than a debriefing from a civilian detainee about an insurgent battalion base camp. Reports should first go to the echelon with the ability to react or exploit the information. One solution would involve a matrix of insurgent force size and geographical location. For example, the Army force headquarters could direct that its major subordinate commands immediately report sightings of, or contact with, insurgent units of more than three personnel within the vicinity of a critical facility or other friendly high-value target.[9] Normally, enemy contact reports and indications of enemy initiated activity should be reported via the most rapid means available to the first echelon capable of reinforcing or assisting the friendly unit-in-contact, or threatened unit. Other less critical information should be forwarded in accordance with the unit field standing operating procedures.

There is a general tendency in the Army to downplay the importance of a "palace guard" (with the singular

exception of the division tactical operations center, where this function is performed by the division band). On the whole, Army units underplay the requirement for local patrolling and listening or observation posts, etc., by tactical operations center personnel and combat support units. In a LIC situation, there is no front line; the insurgents are capable of conducting raids or ambushes anywhere. All support units, as well as the various command posts, need to be able to provide their own security.

CCIV demonstrated the utility of the new divisional long range surveillance detachment (LRSD).[10] Nonetheless, additional training must be provided. The Army force tactical operations center must have procedures to respond rapidly to LRS team reports which are sent by burst transmissions to the detachment base stations. The corps and divisions must continue to refine LRS insertion and exfiltration techniques. The LRS units must improve their ability to establish forward operating bases and hide or watch positions, etc. Most importantly, the G2 and the LRS unit commander must ensure that these reconnaissance and surveillance teams are not turned into bands of ambush specialists or snipers.

Concerning communications, there is apparently a problem associated with establishing higher-lower circuits. The Army force will presumably be able to establish internal communications with sufficient speed to meet its requirements. However, there may be a tendency to place a low priority on terminating joint task force, corps or division communications. From a corps G2 perspective, this is a dangerous habit. Lacking the numerous collection assets of a heavy division, a light division commander must be able to send requests and reports to higher headquarters and to receive the responses quickly.

Structure

Current light division doctrine envisions that the force will be capable of deploying in under 500 sorties. Implicit in that concept is that if the division determines that it requires ground-based communications jamming augmentation or some additional interrogators, these augmentation forces will have to be added to the time phased force deployment list/air flow either with the division (at the expense of di-

visional seating or space) or as follow-on troops.

A light division could very well be deployed without a corps headquarters; the division commander could be the Army force commander, under the operational control of the joint task force (JTF). This relationship will place numerous additional requirements on the division staff. The division G2 should plan to coordinate directly with the J2, JTF for echelons above corps intelligence support and should be prepared to maintain a permanent intelligence liaison team with the JTF headquarters (which is likely to be an ad hoc organization). The division G2 should also attempt to get permission to exchange liaison elements with the host-country armed forces' intelligence service, as should the provost marshal with the host nation's military police agency and the division's supporting PSYOP and civil affairs units with their counterparts.[11] Since these liaison functions are manpower intensive and not supported by the light division MTOE, the division will also have to request augmentation and resolve this specific problem.

The QUICKFIX-II (EH60) COMINT/Electronic Countermeasures helicopters assigned to the combat aviation brigade, but under operational control to the MI battalion (CEWI), proved that they will be valuable additions to the light division force structure, even though they cannot provide 24-hour coverage. This observation is most significant when considering that an insurgency situation could escalate rapidly into a mid intensity conflict and that the light division has no ground-based jammers. However, Army force war planners must realize the difficulty of collecting the required CEOI-type information that is required to conduct effective jamming operations. Additionally, the planners must determine whether it would be better to stage the QUICKFIX platoon from the division airfield or from the MI battalion tactical operations center.

The light division TOE also eliminated any organic divisional capability to collect information on enemy radars. Although this shortfall is probably acceptable in a LIC situation, it could be disastrous should the conflict escalate. The ability to detect air defense artillery associated radars will be crucial in the conduct of deep operations, at any level of conflict intensity.[12]

LIC has received a great deal of attention in the popular military press and at the higher doctrinal headquarters. The doctrinal publications consider LIC as the logical environment for the new light divisions; unfortunately, the "how-to-fight" aspects of LIC doctrine are minimal.[13] The rest of the Army is inclined to ignore LIC. Although directed primarily toward LIC concerns, many of the concepts discussed here pertain to mid and high intensity conflict, particularly regarding the Army's rear operations mission. We must improve the Army's ability to fight unconventional enemy forces—be they in a Third World country or behind friendly lines in Europe or Korea. ★

Footnotes

1. Joint Low Intensity Conflict Project Report, 1 May 1986, U.S. Army Training and Doctrine Command, Fort Monroe, Va. See also "Lightfighters Train for Battles of the Future," *Army Times*, September 1986, pp. 12, 14, 28-29.
2. FM 34-3, *Intelligence Analysis*, January 1986, pp. 9-0 to 9-11 and C-13 to C-20.
3. Lt. Col. Mitchell Zais argued for "early" deployment of intelligence and related specialists in "LIC: Matching Missions and Forces," *Military Review*, 1 August 1986, p. 96.
4. The Army has serious problems in training and maintaining its linguists to standard. Amazingly, instead of devising novel approaches to language training (such as has been done at Fort Lewis), TACATA has proposed eliminating the problem by eliminating the linguists in the light divisions and sending them to the corps MI brigade. This "novel" approach will further degrade the readiness of the light MI Battalions to meet the quick deployment exigencies of LIC. This solution focuses on the language additional skill identifier rather than on the MOS (97, 98 CMF).
5. The implications of separating the insurgent from the masses are crucial. The Vietnam War era phrase of "winning the hearts and minds" of the population is as true in 1987 as it was in RVN (where it was a "policy" not closely adhered to in numerous instances).
6. See FM 27-10, *The Law of Land Warfare* for details.
7. Task 071-331-0802 in the Common Tasks Soldiers Manual (STP 21-1-SMCT) and FM 30-5, *Intelligence Interrogation*, are the basic references for handling enemy prisoners of war and detainees. (Editor's Note: FM 30-5 has been superseded by FM 34-1, *Intelligence and Electronic Warfare Operations* and FM 34-3, *Intelligence Analysis.*)
8. Tactical counterintelligence support to operations security and battlefield deception both demand greater attention. The intelligence community needs to dedicate more resources toward identifying an opponent's intelligence collection capabilities. There should be more to the tactical CI effort than ensuring the operations orders are properly marked or that no one has carelessly discarded classified material.
9. See 1st Lt. Joshua Novak and CW02 John Stanley, "New Doctrine for a New Challenge," and Capt. Geoffrey Demarest, "*Tactical Intelligence," Military Intelligence*, October-December 1985. Neither article, however, covered in detail the importance of identifying high value targets which must be considered as potential targets by the insurgents.
10. Recently, the chief of staff, Army agreed that the LRS units should be assigned to the divisional/corps MI battalion/brigade.
11. This is quite situational. Often the JTF will choose to retain official liaison authority. The Embassy's desires and other political considerations may prohibit DoD liaison with the host nation's intelligence, police and other agencies. This concern might be offset by inviting the host-nation liaison officers to join with the Army force.
12. The Intelligence Center and School should take the lead in ensuring that the light divisions and their MI battalions receive first priority for receipt of specialized ground terminals. If these divisions are to rely on corps and higher HQ for most of their support, they need the down-links to take advantage of that support.
13. A notable exception is the ongoing work being done by the 193d Infantry Brigade (Panama). See 193d Infantry Brigade (Panama) Pamphlet 381-3, "How Latin American Insurgents Fight," 1 June 1986.

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Exploiting Soviet Vulnerabilities by the Brigade and Task Force

by Capt. Justin L.C. Eldridge

For most peacetime S2s, an average workday consists of confronting a myriad of physical and personnel security problems with little time to focus attention on the enemy, although they are expected to know their job once in the field. S2s are charged with making educated guesses about the threat. However, the accumulation of their experience in enemy tactics ends when they leave Fort Huachuca. To compensate for this deficiency, the S2 must do a great deal of professional reading. There is a plethora of material from which to choose. Much of it runs in the vein of apologist literature for or against recent defense expenditures, one of the more notable being Andrew Cockburn's **The Threat: Inside the Soviet Military Machine**. There are also the writings of Viktor Suvorov, PBS documentaries, information disseminated by the U.S. Army Intelligence and Threat Analysis Center, historical research by the Combat Studies Institute, William Baxter's **Soviet Air-land Battle Tactics**, David Isby's **Weapons and Tactics of the Soviet Army**, *International Defense Review*, *Jane's*, and the FM 100-2 series, to name but a few. An S2 must focus his limited training time on a clearly definable and obtainable objective. In short, the S2 determines the most exploitable Soviet weakness by his maneuver battalion, task force or brigade. This exploitation vulnerability is the disruption of the Soviet planning and execution timetable at the tactical level to force them to either replan at the operational level[1] or execute a tactical option that has not been fully developed by either their staff or command elements. To be successful we must destroy those elements which are critical to their tactical execution. The S2's mission then, is to help the commander identify these elements, locate them on the battlefield and assist in their destruction.

It is essential to understand how the Soviets fight and how the intelligence officer can best support the commander's operation and intent. To accomplish this, the S2, S3 and commander must have a thorough knowledge of Soviet system capabilities, force structure and tactics. They must establish clear informational requirements and understand the complete intelligence cycle and resultant products.

There are several types of intelligence

> **"It is essential to understand how the Soviets fight and how the intelligence officer can best support the commander's operation and intent."**

working tools available to the S2. One of the most commonly used is Intelligence Preparation of the Battlefield (IPB). An ongoing mental procedure, IPB is always adjusted to meet constantly changing situations. The best example is reconnaissance and surveillance planning and the establishment of Priority Intelligence Requirements (PIR). PIR must constantly vary to meet new situations and change more often when couched more specifically, as they must be at the maneuver brigade and battalion level. The key is flexibility, with PIR tied into critical named areas of interest and decision points. Detailed collection planning begins at brigade level and filters down to the task force, which is responsible for implementing the plan and adjusting it to the specific circumstances.

PIR *must* change, and those intelligence personnel concerned with the commander's needs will change them based on the commander's intent. Additionally, PIR are directly tied into the collection plan.

When placing named areas of interest, great care must be taken to ensure they answer the commander's PIR *and* accurately reflect the collection capabilities of the battalion, brigade and supporting collection agencies.

The second IPB issue is the requirement for quality terrain analysis, one of the most critical components of IPB. Good terrain analysis is especially difficult for a new S2 who, with little or no maneuver experience, does not understand the effects of terrain on fire and maneuver. One cannot conduct a complete terrain analysis through map reconnaissance alone. An S2 must train with maneuver commanders, especially company level, and study the terrain and its effects. The S2 must view terrain as does the maneuver commander and then provide a detailed terrain product that includes the effects of terrain on the friendly as well as enemy scheme of maneuver.

The final issue of IPB concerns intelligence analysis and templating. The S2 must integrate his estimate into the friendly scheme of maneuver and not depend merely on a static view of the enemy. The S2 must determine the enemy's capabilities *after* we initiate action. Commanders and S2s often perceive the situational template as a final product and ignore information that indicates an alternative. Intelligence becomes selectively perceived and will, in essence, only confirm the template. This misunderstanding is dangerous, for it will cloud the thinking and distort the commander's concept of what occurs on the battlefield. The focus should be on adjusting the template to accurately reflect the true disposition of enemy forces based on incoming combat information.

The S2 must know how to template the enemy. All too often a situational template overlooks good terrain analysis, and a good doctrinal template is no excuse for poor terrain considerations. Both doctrine and terrain must be considered when completing the situational and decision support template.

Another tool is feel for the battle. Like a good commander, the S2 must gain a feel for how the battle is progressing. This skill, acquired through exercises and reading military history, must be

constantly practiced.

To gain this feel, the S2 must learn the ground truth after a battle and then review his reports to determine what information was overlooked that could provide a key to how the enemy was really deployed. The S2's goal must be to structure the battlefield for the commander. To do so, the S2 must paint an accurate picture of how the enemy is arrayed and what his capabilities are. To this extent, it is important to listen to more than the intelligence net during operations. By listening to more than one source (e.g., fire support officer, battalion and company command nets), the S2 will quickly integrate multiple sources to make an assessment on the enemy's course of action. Not all sources will agree, but the S2 must determine the significance of each and how it impacts on the battle. The choice must be quick and decisive. Since there is not always time to confirm all information at the task force and brigade level, a large element of risk enters the equation.

In accomplishing this task, one of the most important considerations for the S2 is the commander's intent. By understanding the commander's intent, the S2 can anticipate the PIR and integrate them into a collection plan that will provide an ongoing intelligence estimate. As with subordinate maneuver commanders, the S2 can and should make reasoned calls on enemy future operations and adjust the collection assets accordingly.

The S2 must also understand attached, supporting and organic collection asset capabilities. He must provide the intent of the collection plan so subordinate elements can assume the initiative if further guidance is not forthcoming and quickly identify and pass critical intelligence to the commander.

"PIR *must* change, and those intelligence personnel concerned with the commander's needs will change them."

An important source of time-sensitive information for the brigade S2 is the Combat Electronic Warfare and Intelligence (CEWI) assets located in the brigade area of operations. Because much of the intercepted information is perishable, a liaison officer monitors the CEWI traffic and provides the brigade

S2 with combat information that impacts on brigade operations. Intercept traffic can also be used to provide insight into the enemy's intent and serve as an excellent cueing system for other assets. More often than not, depending on the division to pass intercept information to the brigade is dangerous due to the long dissemination time required. However, the information provided by the electronic warfare liaison officer should not be ignored and can, in many circumstances, confirm other information gained from ground and air elements.

As our understanding and implementation of AirLand Battle progresses, the brigade cannot easily obtain the needed intelligence without support from higher echelons. These elements are justifiably detached from the brigade battle because of their concern for future planning. The subordinating division provides limited and untimely analytical support, as well as the course of the future battle, to the brigade. The Army must recognize the need to provide the brigade headquarters with additional intelligence collection assets to cover close operations. Two alternatives are Unmanned Aerial Vehicles and brigade scouts.

Unmanned Aerial Vehicles (UAVs) can provide confirming, real-time intelligence to a brigade that can quickly integrate the data into usable combat information for the brigade and task force commander. It is possibly the most responsive and timely collection asset available. The present U.S. Army UAV deployment effort places one UAV battery at corps level, with a deployment concept of attachment to division and brigade levels during combat operations. To assure timely dissemination of UAV-gathered intelligence, the asset must be organic to a brigade or task force, according to the tactical situation. There is little realistic chance that UAV-gathered intelligence could be disseminated to a brigade or task force rapidly enough to be decisively acted upon. This conclusion is borne out by numerous CPXs and is further supported by the competing interests if the UAV is under the control of a division.

Even with a video down-link in a brigade tactical operations center, the UAV must be responsive to the needs of the brigade. The UAV battery and forward control station supporting the brigade must be prepared to fly several unplanned targets in support of the collection and reconnaissance and surveil-

lance plans. They must also be fully cognizant of the decision support template, collection plan and their role in the overall intelligence effort.

Another asset, and one that may be available sooner than a UAV, is brigade-level scouts. As it stands, a brigade S2 can only hope that the battalions will implement the collection plan and include the brigade named areas of interest. Tasking battalion scouts would deprive the battalions of their organic collection assets for their own mission requirements.

"Since there is not always time to confirm all information . . . a large element of risk enters the equation."

The best way to remedy the problem is to provide the brigade headquarters with its own scout element. This, coupled with the UAV, adequately provides the brigade with organic assets that complement the already existing supporting CEWI element linked to the brigade by the liaison officer. The brigade will then be capable of providing its own intelligence collection, encompassing the brigade area of operations, without dependence on higher echelons for information on close operations.

Another important military intelligence asset that instantly impacts on the friendly and enemy course of action is jammers. The jammers must be integrated, as are all combat multipliers, into the friendly scheme of maneuver. The jammers concentrate on a limited number of targets since they are a scarce asset and cannot be used indiscriminately. It is important to choose high value targets that will help create the desired outcome of the battle. For the brigade and task force, the best and most often used targets are the enemy's artillery nets and counterattack or second-echelon forces.

Once the targets are chosen, the jammers must be triggered. In some limited cases, the jammers, normally a division asset, may be under operational control or attached to a brigade. Subsequently, two triggering methods can be used. The first is on the brigade commander's order (on-call jamming). The second triggering method is event-driven. There are two variations. The first is based on the friendly scheme of maneuver. For example, the initiation

of jamming is conducted by the CEWI element commander after the friendly units cross a specified phase line. The second possibility is to use a decision point and targeted area of interest. This would be effective if the decision point is adequately monitored and the information can be relayed to the CEWI company expeditiously enough to affect the enemy course of action.

"It is important to exploit and locate Soviet vulnerabilities to create an operational window of opportunity."

Time is a critical element to the U.S. and Soviet commander alike. The focus on time stresses the rapid processing of intelligence for exploitation and execution that is based on current intelligence and operations; this will create a window of opportunity for U.S. forces to seize the initiative.

It is important to exploit and locate Soviet vulnerabilities to create an operational window of opportunity. To do so, the intelligence system must disseminate intelligence quickly. However, the S2 must be prepared to compensate for a lack of collected information with analysis. In support of brigade or battalion operations, a division must provide several basic types of intelligence.

The first informational requirement is knowing the enemy order of battle. The brigade or task force must know the name and organization of the enemy division they oppose; this will allow the brigade and task force to adequately analyze all possible options.

The second informational requirement is knowing the enemy's equipment capabilities and force structure. The S2 must combine received information with his terrain analysis to develop a situation template that maximizes the enemy's weapons system capabilities. Proper templating and terrain analysis will enable the S2 to identify exploitable terrain, understand how the enemy's weapons systems can be deployed to support potential fire zones, and determine what terrain reconfiguration requirements (engineer barrier plans and possible delivery of chemical agents) exist to maximize weapons ranges and capabilities.

The third informational requirement is knowing the percentage strength of the units opposing the brigade and task force. It is not enough, however, to receive an overall strength figure. This figure must be broken down by major weapons systems. IPB, coupled with the percentage strength and other considerations, help the brigade or task force focus their limited intelligence collection assets on key targets.

Finally, the division must inform the brigade of which enemy units are confirmed and which are templated. In this way the division tells the brigade which locations are "negotiable." This will allow the brigade S2 to accurately analyze the situation in his area of operations.

In essence, the brigade or task force is more concerned with the enemy's most likely course of action than an enumeration of several. Time constraints force the brigade or task force to choose one or two major courses of action from which to begin planning. The goal is to decrease planning time at higher echelons in the brigade, leaving the company commander and platoon leader with the greatest preparation time possible. A recent article in *Infantry* indicates that a tougher standard than the one-third, two-thirds rule of one-fifth, four-fifths, increases a battalion's planning time by 21 percent and, if the battalion can also conform to the rule, increases the company commander's planning time by almost 45 percent.[2]

Conversely, a division has certain expectations from its maneuver brigades. The division must receive an estimate of the size, types and strength of enemy units in contact with the brigade, along with an assessment of what will happen in the next two hours. The division is completely dependent on the brigades for close operations intelligence. By being provided this intelligence, division planners will be better able to assess the time and place of commitment of enemy second-echelon units. The brigade assessment focuses on second-echelon elements and the enemy's main effort. This allows for prioritization of targets at the brigade or task force level and helps the S2 provide the commander with intelligence to support rapid decision making.

The most exploitable vulnerability is to focus on the critical elements of the Soviet battle drill and execution timetable at the tactical level. Two examples will suffice to support this contention: Soviet battle drill or commitment timetables and artillery planning.

Soviet battle drill and commitment timetables offer a good example of how tactical disruption can force them to commit their combat elements in a haphazard or piecemeal fashion. It is the Soviet goal to present us with a continuously escalating battle. At the brigade or task force level, we are concerned with isolating the second-echelon battalions or regiments for interdiction. Once we destroy the first-echelon battalions, we fight the second in a separate battle.

The 1984 version of **Taktika**, the Soviet tactical guide for officers, emphasizes tactical terrain considerations: "One indicator of combat skill in subunits is effective use of terrain for maneuvering in order to quickly advance to the enemy's flanks and rear, launch decisive thrusts, break up his combat formations, and defeat him in detail."[3]

To respond to an effective interdiction of second-echelon battalions, the Soviet Army commander faces numerous hard choices. He may prematurely advance the second-echelon regiments, disrupting his timetable and forcing the division and regimental staffs to shift to an alternative. In the best of circumstances, he could replan major operations and run the risk of executing a mission without proper coordination that culminates in a piecemeal attack. Finally, he could accept a lull in the battle that may provide a window of opportunity for U.S. forces to seize the initiative.

A second and possibly just as critical vulnerability is the rigid Soviet fire planning system which makes the firing of targets of opportunity difficult. **Taktika** states the following, "Organic and attached fire resources (artillery and mortars) are normally instructed as to which targets should be destroyed during the preparatory fire phase and when the attack begins, whom to support and by what method, tasks in connection with supporting the commitment of the second echelon and repelling enemy counterattacks, fire positions, route and schedule of advance, the time by which to be ready in open fire, and the schedule of moves during the engagement."[4]

Two important characteristics are apparent. First, the Soviets possess an extremely rigid system, with a Soviet division having significantly fewer fire "inputters" than a U.S. brigade. Thus, fire planning systems at the Soviet division and regimental level have extreme-

Extending Personal Experience

by Lt. Col. Richard N. Armstrong

Eying a group of newly arrived officers during the Peninsular War, the Duke of Wellington, somewhat unimpressed, remarked, "I don't know what effect they will have on the enemy, but by God, they frighten me!" Reflecting upon this anecdote, one realizes that the Duke of Wellington expressed a fear that many leaders have of new arrivals—a fear of inexperience. The Duke of Wellington's inexperienced officers presented a greater chance of misunderstanding his intentions, initiating actions that would be eccentric rather than concentric and, in the end, risked not only their individual lives but the lives of others as well.

The novice will always raise concerns in commanders, and every army seeks to rapidly train their newcomers. The individual professional soldier who actively seeks to broaden his personal experiences usually becomes a valuable asset in the eyes of his commander. One can extend personal experience by learning from the experiences of others and building a base of practical knowledge and judgment. The most meaningful way in which the neophyte can bridge the experience gap is to study past military events, operations and leaders. Individual efforts may ultimately coalesce and improve an army.

Hindsight is always clearer than foresight. One accumulates, with experience, a more seasoned capacity for judgment that will allow a greater understanding of current activities. This allows anticipation of subsequent events or requirements, thus making tasks or decisions easier. So, the accumulation of experience can be beneficial.

The most direct method of acquiring experience is an active personal involvement in jobs and activities. This practice provides the foundation for subsequent learning and other seasoning experiences. However, this practice is time-consuming, and the lessons are not always immediately discernible. Also, the scope and breadth of one's experiences may be limited. The individual must accelerate the accumulation of experience.

A second way to gain experience is to exchange with others. Listening to others share their war stories provides an exposure to situations that don't occur in peacetime. The veteran's conclusions offer a rapid lesson. Superiors, providing one the benefit of their knowledge in the form of "foot locker" counseling, fall into this category. Often superiors have done this job in years past and know a proven way to accomplish a difficult task.

Exchanging learning with contemporaries broadens one's practical knowledge. Becoming familiar with the different jobs of contemporaries will extend one's skills. Gleaning lessons from others will help one gain experience faster than by solitary efforts.

An obscure French lieutenant colonel, bound by institutional restraints, understood these limits clearly. In 1935, he published **Vers l'Armee de Metier**, which advocated a small, professional army of mechanized units for the French Army. This idea drastically opposed the general staff's defensive doctrine and the significant investment in the Maginot Line. For this proposal, Charles de Gaulle was removed from the 1936 promotion list, his career finished. German leaders, such as the famed Panzer commander Guderian, read his book on armored warfare and applied a comparable concept in a lightning victory against Poland in September 1939 and again in France during May 1940. De Gaulle's entrapment within the French army's restraints is a caution on the narrowness of a single army's conventional wisdom. We, as an army, must continue to seek areas of experience beyond our immediate circumstance. This may begin with the study of past military experiences.

Past examples can be models for personal use. Studying past military events develops extremely useful skills for intelligence personnel who work primarily staff actions. These skills are: a conceptual and practical understanding of military operations, a sense of perspective, an ability for critical assessment, and the facility for creative thought.

Military studies include all accumulated military experiences since the beginning of man's graphic and written accounts. Arthur Ferrill, in **The Origins of War**, identifies the use of Paleolithic tools and weapons for warfare. He also provides evidence of organized warfare in Neolithic cave paintings and identifies columns and lines, long since the *sine qua non* for military movements, in prehistoric combat. Armed with a sweeping view of warfare from primitive past to present, one slips the bounds of immediate circumstance and institutional restraint. With the knowledge of hundreds of military operations, one approaches the planning and execution of a single operation with greater acumen.

For instance, the intelligence professional can gain a rich understanding of intelligence in its most rudimentary workings by comparing the use of intelligence in Alexander the Great's army to the Duke of Wellington's expeditionary force in the Peninsular War. One might also follow the impact of technology on intelligence collection since the industrial revolution.

Despite available technological gadgetry, there is still a role for such time-proven tools as the classic reconnaissance patrol. On a very modern battlefield, a reconnaissance patrol discovered the boundary between the second and third Egyptian armies in the Yom Kippur War—a boundary exploited by the Israeli Defense Force in crossing the Suez Canal into North Africa. One can learn from the continued contributions of soldiers on the battlefield which provide a balance to the appreciation and use of the various intelligence disciplines.

By tapping the wealth of past precedents, one exponentially expands the personal accumulation of experience. One picks and chooses from any age, any situation, any lesson that contributes to current problems. One can find Joshua Chamberlain's leadership on Little Round Top inspirational, if not practically instructional. Study of the Franco-Prussian War reveals the impact of technology on men and the battlefield. One can study great military leaders' decisions—a privileged access to little known thoughts and comments on senior levels of

command. One can research issues much greater than one handles daily, in preparation for higher positions and responsibilities. These various exposures create an immediate involvement that begins to season one's judgment.

Broadening a range of experience equates to expansion of knowledge and an increase of awareness of alternatives. With the wider base and greater sense of the continuities and discontinuities of past events or the course of events, one can solve new problems with greater aplomb. With constant exposure, one's practical knowledge will grow. It will be an imperceptible growth at first, unrealized except over time. This exploration of the past within the framework of professional interest is a means by which one obtains a substantial measure of self-knowledge.

With an awareness of past events comes a sense of perspective. Readings of original battle accounts by opponents who fought at the same time and place on the battlefield, makes one wonder if they were in the same fight. People view things differently, and military affairs are no exception. From different levels of command, the increased awareness of individual perspective on events is another subtle way in which the reading of past events will suggest alternatives or considerations in current staff actions or leadership situations.

A trained perspective incorporates the ability to enter situations or problems with objectivity, allowing one to discriminate between relevant and irrelevant issues, a skill critical to successful staff work.

With this increased awareness of different perspectives comes an enhanced ability for critical thought. Two things result from this practice of handling a wide variety of data and developing a method for using past events. First, the skill of synthesis involves identifying the priority intelligence requirements and putting them in logical order. The recapitulation of battles and leadership traits also requires this skill, and it is further honed and reinforced by further study and exposition. Secondly, the clarity of thought necessary for synthesis also develops an appreciation for language that soon begins to manifest itself in our writing, further enhancing our vital staff skills.

Another, and perhaps even more important, dimension of our studies is the creative use of the past. The ability to recall conceptual examples from past military events allows one to envision alternatives for a current situation. Such an abstract form brings to bear the broad range of past experiences that are greater than one's individual experience. For example, the application to battle of an understanding of how past tank formations of a particular army were used or how they conducted the exploitation phase may provide clues for a current assessment. The study of Soviet mobile group operations during World War II prompts consideration for the commitment of the Operational Maneuver Group under modern conditions.

These qualities enable flexible thought. One becomes objective and open to alternatives. We become eclectic in our problem solving. Extended personal experience increases one's awareness of new solutions and offers a certain continuity to our actions.

The quality of professional maturity in this individual growth will be a direct result of how well one both chooses and uses his readings and study. Anyone can select from the past factual examples to fit one's purpose. But facts in themselves will not make a person wiser. Often, a premise that similar causes have similar effects drives the student of the past to collect facts for comparison to similar situations. A past solution applied today cannot be done without certain critical considerations. For example, one could only superficially analyze a 20th century communist insurgency movement in the context of a 19th century theory.

Even in the context of general warfare, if we continue to pursue the concepts of 19th century military theory at the end of the 20th, the prospects for the 21st century are increasingly dim. Military professionals must study the past and think reasonably about the art of war. What is important is the individual objective. This wise caution of a mentor is appropriate: "Do not read military history to acquire a discrete body of facts to dip into when the situation requires but rather to create an idiom of thought that is flexible." We often think about the past. Reminiscing ordinarily happens daily for the professional soldier in many forms: preparation for exercises, the review of after-action reports, analysis of past experiences for doctrinal manuals, a study of a last battle. The problem is conceptualizing contemporary military problems as illuminated by past events. Although there is merit to understanding past solutions to past events, one must read for a more intrinsically substantive purpose that will transfer more readily to individual development. Without an individual development and understanding in our readings on the past, we will likely misidentify "lessons" for application.

Our concern here should be the selection of past examples to verify recent doctrinal development. In a rush to redirect current military doctrine and capabilities for waging war, reform pressures pose other problems. We have reviewed the past examples of quantitatively inferior forces defeating numerically superior armies. After isolating the factors of maneuver, turning inside decision cycles, synchronization, and other homilies, we seem to have neglected the more numerous examples of past conflicts. For example, numerically superior armies definitely win more often, especially in long war scenarios. We are trying to build a doctrine based on *exceptions* of the past.

How one reads will also have impact. Again, a sage professor once warned, "Books are like mirrors; if a fool looks in, a genius doesn't look out." Scrutinize the past, not in a single mirror but in a number of them. Some will provide a broad view of military trends from earliest antiquity to present while other views will be confined to a particular period or event. One must read with discernment, a critical eye. As a military professional, one has a basis for comparison and contrast. One should identify categories of reading with some purpose in mind. MI professionals, for example, could focus readings in the history of intelligence, Soviet military and general military affairs. Lessons from the past come not only from nonfictional studies but also from fictional military literature. Fictional examples that come to mind quickly are Michael Shaara's **Killer Angels** or Harry Brown's **A Walk in the Sun**.

There are so many well-written books that one should not labor through a book just for the sake of finishing it. If you find one book difficult or boring, put it aside and try something else. The library shelves are filled with fascinating and interesting books on military affairs. Don't bog down!

Reading about the military past will provide an extended and accelerated experience opportunity that will increasingly enhance one's professional performance.

Combined with a higher quality of reasoning and discernment and a well nurtured sense of perspective, the professional soldier can strengthen a wide range of personal and professional attributes. Over time, almost imperceptibly, one's judgment will gain a depth of richness of thought that is above the average. For leadership is the ability to rise above conventional wisdom. ★

Lt. Col. Richard N. Armstrong is G2, 1st Cavalry Division, Fort Hood, Texas. He holds a master's degree from Boston Univ. and is a graduate of CGSC. Armstrong has served as a military intelligence officer in Vietnam, Germany, Korea and at various levels of command. He has published numerous articles on Soviet military history and affairs.

AUTOMATION SECURITY

• Include automation security in IG and CI inspections to increase command emphasis.

• Retain Deputy Chief of Staff for Intelligence proponency for the Army Automation Security Program, with MI personnel serving security-conscious functions to monitor computer operations Army-wide.

• Educate the automators and promote general security awareness so that everyone understands the need to safeguard our computers and sensitive defense information—and carry out the original intent of AR 380-380.

As we continue to become more dependent on computers and word processors, our operations become more vulnerable. Most automated systems are vulnerable to vandalism, weather and climatology. The information processed on the systems is meanwhile vulnerable to penetration by hostile intelligence services, as well as intentional sabotage or simple carelessness by our own people. Until now, the Army Automation Security Program has failed to keep pace with the rapid development of automation. The Army Automation Security Program cannot catch up overnight, but the MI community can help to speed up the process. We must take a closer look at the goals of the Army Automation Security Program and our responsibilities under AR 380-380, and then take the necessary action to effectively counter the threat. ★

SOVIET VULNERABILITIES

ly limited capabilities to shoot targets of opportunity.[5]

The second characteristic is the Soviet scientific basis. Soviet ammunition expenditures are determined by hectare targeting. Suppression and destruction of any given target requires a specified number of rounds. In essence, the Soviets doctrinally plan for a large number of low-value targets, especially if target planning is either inaccurate or based on faulty intelligence. This forces a dependence on high volumes of fire.

Consequently, the Soviet fire support system can easily overload and upset their ability to concentrate artillery at the decisive place and time. This will significantly impact on the place and tempo of artillery fires. Our operational consideration is to use deception and feints at the brigade or task force level.

IPB is the place to start the collection process, and it is the collection process that is critical to an accurate template. Fort Huachuca's **Intelligence Preparation of the Battlefield** (Supr 66000-A, p. 6-3) states that: "The credibility of situation templates is directly related to the accuracy that is infused into threat evaluation and terrain and weather analysis. The judgments that we make in developing the situation templates are our own. We must become experts." The credibility of the situation template is directly related to accurate threat, weather and terrain evaluation, integration, and the ability to aggressively implement a collection plan that adjusts the template accordingly.

The S2 must be aware of how the enemy will fight, what his vulnerabilities are and, most importantly, how intelligence can best support the commander. To accomplish this the S2 must focus on the Soviet commitment timetables, equipment signatures and battle drills; identify specific requirements based on the friendly scheme of maneuver and the commander's intent; and finally, use all available tools to address unanswered questions. ★

Footnotes

1. Interview with Lt. Col. Peter McDonald, G2, 1st Cavalry Division, Fort Hood, Texas, 25 November 1986.
2. Maj. James A. Dunn, Jr., "The Field Order Fast," *Infantry*, September-October 1986, p. 23.
3. V.G. Reznichenko et al., **Tactics**, trans. CIS multilingual section, National Defense Headquarters, Ottawa, Canada (Bolling Air Force Base, Directorate of Soviet Affairs, Air Force Intelligence Service, May 1985), p. 78.
4. Ibid, p. 82.
5. Interview with Maj. James Steers, Fire Support Officer, 1-82 Field Artillery Battalion, Fort Hood, Texas, 25 November 1986.

Capt. Justin L.C. Eldridge has attended the MI Officer Basic Course and the Electronic Warfare Staff Officer Course. He earned a master's degree in history from the Univ. of Nebraska-Lincoln. He has held positions as an assistant operations officer, assistant plans officer, battalion intelligence officer and chief, collection management, 1st Cavalry Division, Fort Hood, Texas. Eldridge is currently S2, 1st Brigade, 1st Cavalry Division.

although the two are not mutually exclusive. But to make the case that the individuals who have reached the top are "KGB-types" or were involved in "KGB/ military affairs," and that this will lead inevitably to mass murder and global mayhem is simply bad analysis, a view of the world through KGB-tinted glasses that no reader of **Military Intelligence** should be asked to accept.

Peter Almquist
Arlington, Va.

Dear Editor:

The views of Lt. Col. Boyce, U.S. Air Force, (Feedback, October-December 1986) on the subject of clandestine operations is instructive, though not in the way he likely intended. His summary defense of duplicity and deception as necessary tactics of security policy attempts to redeem the well-intentioned bungling of uniformed NSC amateurs by implying it bears some kinship to acts condoned by great democratic leaders of this and earlier times. Either he fails to see or purposely ignores a fundamental distinction between those examples and the actions now rightly under Congressional investigation. His references to the acts of Washington, Stimson and Churchill relate to surreptitious measures employed in time of war for the purpose of gaining information for use against the enemy. The actions of McFarlane, Poindexter and North, in sharp contrast, were taken in peacetime and for no discernable intelligence purpose against the legitimate, albeit unpopular, government of a fifth-rate socialist republic. Even that "noble" purpose appears to have been an afterthought in this comedy of errors, a ham-handed way to dispose of the embarrassing by-product of illicit arms traffic.

That a large number of Americans wish the worst for the Sandinista regime is not disputed, and I number myself among them. But that disdain is not held deeply or widely enough to move our Congress to sanction hostilities. On the contrary, the Congress has spoken quite the opposite. The legitimate use of clandestine operations of the sort mounted by the NSC players in this farce is against acknowledged enemies of our republic and not as a subterfuge for our own laws. To act otherwise does great damage to all seasoned and disciplined intelligence operatives and agencies.

Finally, I must dispute the implications made, if only by association, that the Sandinista threat to our security is to be equated with that formerly posed by Nazi Germany or presently by the Soviet Union. Presumably this excuses a minor error by advancing a major good. However, the utter lack of reasonable proportion in such a comparison erodes the validity of present and future clandestine operations against appropriate targets at appropriate times.

The Iran-Contra fiasco was a blunder from the start in that it attempted to achieve unsanctioned ends compounded by improper means through the actions of the wrong people. Boyce shares good company in not seeking the aforementioned distinctions, for seemingly neither did Poindexter or North. Your illustration of North striking a Patton-like pose with the Stars and Stripes behind, serves to remind that patriotism still finds use as the last refuge of the scoundrel.

James G. Borowski
Major, MI

Dear Editor:

The principal thrust of military intelligence business revolves around collecting, producing and disseminating intelligence. Certainly, one could add a laundry list of adjectives describing various attributes of intelligence like timely, accurate, succinct, decisive, etc., but the basic mission is producing intelligence. On the surface, it is not a very glamorous or complex mission; yet it is absolutely critical for preserving peace and winning wars.

Somehow we've begun to take our eye off the ball as other pressures begin to interfere with our thinking. Is selection of an officer to lead a production effort more important than company or battalion command? A sage answer to that question is: Good leaders manage their personnel programs so production remains at a high level of performance, while talented leaders get the opportunity to command.

Is intelligence production more important than placing gifted leaders in a stepping stone position for command e.g., executive officer and operations officer positions? The answer is, of course, intelligence production is important, but if we want our selected, high-quality leaders to be the best commanders possible for our complex organizations, we must invest in the requisite preparatory time. Officers with recent XO or S3 experience have a decisive edge for selection to command over those who have simply produced intelligence. This is the rule, written or unwritten, by which Army command selection boards live.

Another logical question is, do we have enough officers to simultaneously man both production and grooming positions with qualified officers? The answer is no for three reasons. First, the Army of Excellence (AOE) force structure is terribly lean.

Second, authorized strength levels on Modified Tables of Organization and Equipment fall considerably short of AOE blueprint. And third, the Officer Distribution Plan is merely a mark on the wall. In summary, CEWI units are continuously too short of officers to fill both grooming and production positions, and as things currently stand, we find those best qualified inextricably drawn to fill battalion XO and S3 positions, vice chiefs of DTOC and CTOC Support Elements and technical control and analysis elements.

The world gets even more complicated when the MI Branch cautions that Maj. "X," a superbly qualified officer destined for command, is not available for an organization unless he gets an XO or S3 job immediately. Now, as one can readily discern, production management jobs get relegated to back-row importance in our quest to be exactly like the combat arms.

So what are the options at the corps and division levels? Some G2s take talented, but inadequately trained officers and toss them into the intelligence production breach. This is not fair to either the officer or the unit whose capability to fight and survive is predicated on the best possible intelligence. One could even argue that you may get by with faking command but you won't last five minutes in a production job, lacking the fundamental underpinnings of analysis.

Another option is to select an officer from among the best and force him into a production job. That produces intelligence to help win wars, and helps train good junior analysts, but the officer, his peers, his leaders and the MI Branch know they're doing him a disservice. In fact, they may even be permanently relegating him to a noncommand career field for the remainder of his service.

We, in Military Intelligence, must bite the bullet and begin telling the entire Army, including selection boards, that grooming positions in MI include leading a variety of analytical and production assignments. We need to join in this re-education endeavor and stop perpetuating the myth that MI is just like Armor, Infantry and Artillery branches in terms of command selection criteria. If not, we're going to discourage involvement in intelligence production to our severe detriment. We are in danger of further emasculating our production base in the MI branch by our current grooming policies. It's time for MI to dust off its mission statement again and manage our most talented officers with the recognition that we are different. It takes leadership to run today's corps or division TOC support elements or technical control and analysis elements.

Col. Leonard G. Nowak
Assistant Chief of Staff, G2
Fort Hood, Texas

EASTERN EUROPE

it to be: a neutral, natural bridge between East and West. Such an evolution will not only prevent future confrontations, but will eliminate dangerous situations similar to those which led to two world wars. ★

Footnotes

1. Paul Marer, "The Political Economy of Soviet Relations with Eastern Europe," in Sarah Meiklejohn Terry (ed.), **Soviet Policy in Eastern Europe** (New Haven: Yale University Press, 1984).
2. Vlad Georgescu, **Istoria Romanilor** (Los Angeles: ARA 1984); Robert R. King, **History of the Romanian Communist Party** (Stanford: Hoover Institution Press, 1980); Harold B. Nelson, ed., **Poland-A Country Study** (Washington, D.C.: U.S. Government Printing Office, 1983).
3. Statement printed in various chronologies of diplomatic events after 1953.
4. Theory advanced by various sociologists and political scientists. See among others Gabriel A. Almond, G. Bingham Powell Jr., **Comparative Politics** (Boston: Little, Brown and Co., 1978), pp. 409-15.
5. Numerous reports in the Western press during the post-Helsinki years. Also, later reports published by **Amnesty International**, the State Department and other organizations.
6. Accounts published by various Western publications. See the Washington **Post**, November 27, 1977.
7. Almond and Powell, pp. 412-14.
8. See Jerry F. Hough and Merle Fainsod, **How the Soviet Union is Governed** (Cambridge, Mass.: Harvard University Press, 1979).
9. Zbigniew Brzezinski, **Between Two Ages** (New York: The Viking Press, 1971), pp. 164-66.
10. John Fox, "Murder of a Polish Priest," **Reader's Digest**, December 1985.
11. **America**, February 7, 1985. Last figures for international publication were released by Romania in 1978.
12. Francis Fukuyama, "Gorbachev and the Third World," **Foreign Affairs**, Spring 1986, p. 718.
13. In 1975, the United States granted Romania MFN status and benefits, and in 1980, imposed economic sanctions against Poland. These actions failed to substantially influence the policies of the two countries.
14. Present malaise in Eastern Europe is reported in numerous Western newspapers, as well as various issues of **Current History** and **Problems of Communism**.

Dr. Nicholas Dima is currently a visiting professor at the John F. Kennedy Special Warfare Center and School, Fort Bragg, N.C. He specializes in the instruction of Soviet and Eastern European area studies. A native of Romania, Dima immigrated to the United States in 1969 after his second attempt to escape. He earned a doctorate from Columbia University with a specialization in population geography and demography, and USSR and Eastern Europe. Dima is employed with the U.S. Information Agency, Voice of America, in the capacity of foreign affairs specialist, writer, interviewer and broadcaster. He has authored a score of articles on Eastern European and Soviet social, political and economic conditions.

TOPOGRAPHIC SUPPORT

of varying temperatures, some of which are close to that of the target, the resulting clutter tends to hinder target acquisition. For thermal imagers, clutter is most likely to occur in clear, sunny conditions, particularly when a variety of materials comprise the scene. Cloud cover, high humidity, wind and precipitation each tend to reduce thermal clutter but, consequently, may also reduce the T. The overall effect of any of these conditions may be to increase the effectiveness of a thermal imager if, in the absence of the condition, a great deal of clutter would occur.

Undisturbed snow cover usually results in a uniform (uncluttered) background, but vehicle tracks and other disturbances of the snow can cause thermal clutter. Clutter is also caused by fires and other types of hot spots resulting from battlefield activities.

Atmospheric propagation refers to the transmission of infrared energy from the objects making up a scene through the atmosphere to the thermal imager. Even when a scene contains good thermal contrast and no clutter, the atmosphere between the target and the thermal imager can degrade the image to the point that the target cannot be acquired. The primary causes of this degradation are scattering and absorption by particles, absorption by molecules and optical turbulence.

The most familiar cause of degraded propagation is the presence of atmospheric particles such as rain, snow, fog, haze, dust and smoke. Infrared propagation is affected more by conditions resulting in relatively large particles, such as rain, snow and lofted dust, than it is by the presence of smaller particles. These large particles reduce infrared propagation approximately as much as they affect visibility. However, the small particles contained in fog, haze and suspended dust interfere with infrared energy less than they affect visibility. This is one of the major advantages of using thermal imagers. Most conventional types of smoke are comprised of small particles that do not strongly interfere with infrared propagation. Some new types of screening smokes consist of large particles designed to degrade infrared propagation.

Absorption of infrared energy by atmospheric molecules also degrades propagation. The presence of water vapor molecules is the primary cause of this degradation: the amount of degration is dependent on the total amount of water vapor present. The total amount of water vapor is additionally related to air temperature. As a result, the effect of molecular absorption will be greater in humid, tropical regions than in drier or more temperate areas. In heavy fogs, the advantages of being able to see through the small particles with thermal imagers can easily be offset by water vapor molecule absorption.

Propagation is also degraded by the presence of optical turbulence, which reduces performance of thermal imagers by causing image blurring and shimmering. Caused by uneven heating of the air, optical turbulence can frequently be observed in desert areas, where it produces the wavy, shimmering effect seen above the desert surface. Optical turbulence usually decreases with increasing height above the ground and is usually strongest during warm, sunny conditions.

The ability to see targets regardless of the weather is greatly increased with the use of thermal imagers. However, the weather can strongly interfere with their performance. Precipitation and thermal reversal can cause targets to literally disappear from view. To iterate, "To be forewarned is to be forearmed." ★

Dr. Mary Ann Seagraves is a meteorologist with the U.S. Army Atomospheric Sciences Laboratory and is developing tactical decision aids describing effects of the weather on target acquisition devices. She has a doctorate degree in atmospheric science from Colorado State Univ.

USAICS Notes

Aviation Intelligence Officer

by Capt. James T. Faust

The aviation intelligence officer (15C) must possess a wide breadth of aviation and intelligence skills that can only be acquired through a mutually supportive relationship between the Military Intelligence (MI) and Aviation (AV) branches. This principle, agreed upon by the commanding generals of the U.S. Army Aviation Center (USAAVNC) and the U.S. Army Intelligence Center and School (USAICS), has resulted in a major modification to officer personnel management.

Special Electronic Mission Aircraft (SEMA) systems such as the EH1X/EH60-mounted QUICKFIX at division level and fixed-wing systems found in the MI Battalion (Aerial Exploitation (AE)) represent an exceptionally responsive intelligence collection capability. Combat development initiatives in the SEMA arena are producing more sophisticated aircraft systems. In conjunction with the important role of the MI Battalion (AE) in intelligence support operations is a corresponding increase in emphasis on solid intelligence support to the Combat Aviation Brigade (CAB) of the division and corps. SEMA support allows the corps commander to see deep with organic assets to execute deep operations, while the CAB allows division and corps commanders to quickly maneuver fire support to win engagements and battles during deep, close and rear operations. The aviation intelligence officer involved in SEMA and MI Battalion (AE) operations must be highly trained and skilled in both aviation and intelligence requirements. As the complexities and sophistication of the future AirLand battlefield grow, it becomes increasingly important to have properly trained and experienced aviation intelligence officers within the field force.

Several independent personnel actions had a significant impact on aviation intelligence. They produced a relatively small impact on the combat intelligence aviation officer population. However, the combination produced serious ramifications.

15C AVIATION/INTEL SKILL REQUIREMENTS

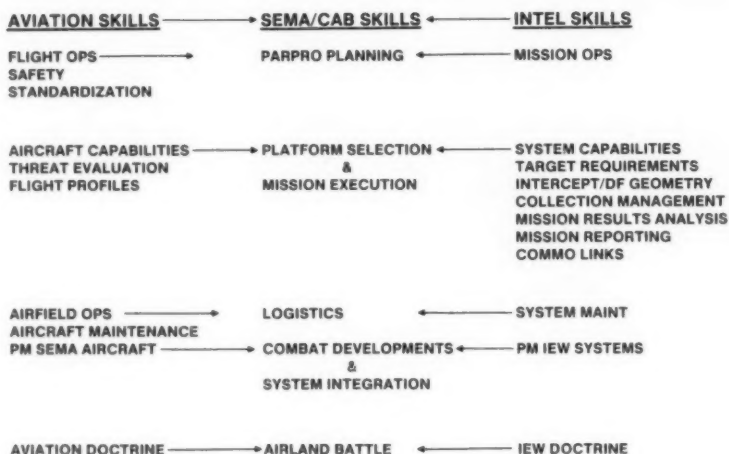| AVIATION SKILLS	→	SEMA/CAB SKILLS	←	INTEL SKILLS
FLIGHT OPS	→	PARPRO PLANNING	←	MISSION OPS
SAFETY				
STANDARDIZATION				
AIRCRAFT CAPABILITIES	→	PLATFORM SELECTION	←	SYSTEM CAPABILITIES
THREAT EVALUATION		&		TARGET REQUIREMENTS
FLIGHT PROFILES		MISSION EXECUTION		INTERCEPT/DF GEOMETRY
				COLLECTION MANAGEMENT
				MISSION RESULTS ANALYSIS
				MISSION REPORTING
				COMMO LINKS
AIRFIELD OPS	→	LOGISTICS	←	SYSTEM MAINT
AIRCRAFT MAINTENANCE				
PM SEMA AIRCRAFT	→	COMBAT DEVELOPMENTS	←	PM IEW SYSTEMS
		&		
		SYSTEM INTEGRATION		
AVIATION DOCTRINE	→	AIRLAND BATTLE	←	IEW DOCTRINE

Chart 1

Prior to the creation of the AV branch, the commissioned officer aviators involved in intelligence support of tactical aviation units and serving in fixed-wing SEMA units were usually assigned to the MI branch. The commissioned aviator was free to pursue multiple career paths and opportunities. The officer personnel management strategy facilitated this flexibility.

With the advent of the AV branch in 1983, the situation changed. The formation of the AV branch signaled the ascendancy of aviation as a key aspect in U.S. Army doctrinal development to support AirLand battle. The conditions of the congressional mandate to create the AV branch allowed full time flight pay incentives only to those officers who elected to transfer, less Medical Service Corps pilots. Commissioned pilots who did not elect to transfer received flight incentive pay only when actually serving in a flight position. All but a few commissioned aviators transferred to the AV branch and became combat intelligence aviators (15M).

The impact on SEMA aviation was a tremendous enhancement for the U.S. Army as a whole. MI aviators who branch transferred were still the cornerstone of the operations of SEMA units. However, with these officers in the AV branch, a shared ownership evolved. Under the guidelines of the Officer Personnel Management System I (OPMS I) this was not a significant problem.

The system's dual branch concept produced a situation where the 15M pilot held an additional speciality in MI. The training, development and assignment opportunities promoted flexibility and produced equal proficiency in both aviation and intelligence skills essential for the CAB and SEMA missions (see chart 1). The combat intelligence aviator population served with distinction in intelligence and aviation assignments worldwide. The professional manner in which they accomplished intelligence duties offset the die-hard notion that these fixed-wing aviation officers were merely "fixed-wing taxi drivers." The implementation of the Combat Electronic Warfare Intelligence (CEWI) Brigade at corps level institutionalized the requirement to develop aviation officers with in-depth MI skills. The success of CEWI brigades worldwide has validated both the operational and organizational concepts to include that of the MI Battalion (AE) and its commissioned aviation officers.

AVIATION CAREER MANAGEMENT CONCEPT

COL

MI BRANCH TRANSFER OPTION

LTC

MAJ

BDE CMD/PM — 20

BN CMD DA/MACOM — 16

CO CMD   CO CMD — 12

(CGSC) — 8

FA UTILIZATION
OR
NOMINATIVE ASSIGNMENT
(CAS³)
CO CMD

AVLOC
AVUM (SI)

4

MIOAC

CPT

SYS QUAL FWMEQ

BN STAFF   BN STAFF

CO CMD   (IP CRS)
           (ADV CIV SCH)
SEC LDR   ADV COURSE   PLT LDR
                         SEC LDR

LT

AVIATION TACTICAL
INTELLIGENCE

AQC
IERW
AVOBC

AVIATION LOGISTICS

GOALS:
1. COMPETENCY IN ALL FACETS OF AVIATION
2. INCREASED BREADTH OF KNOWLEDGE
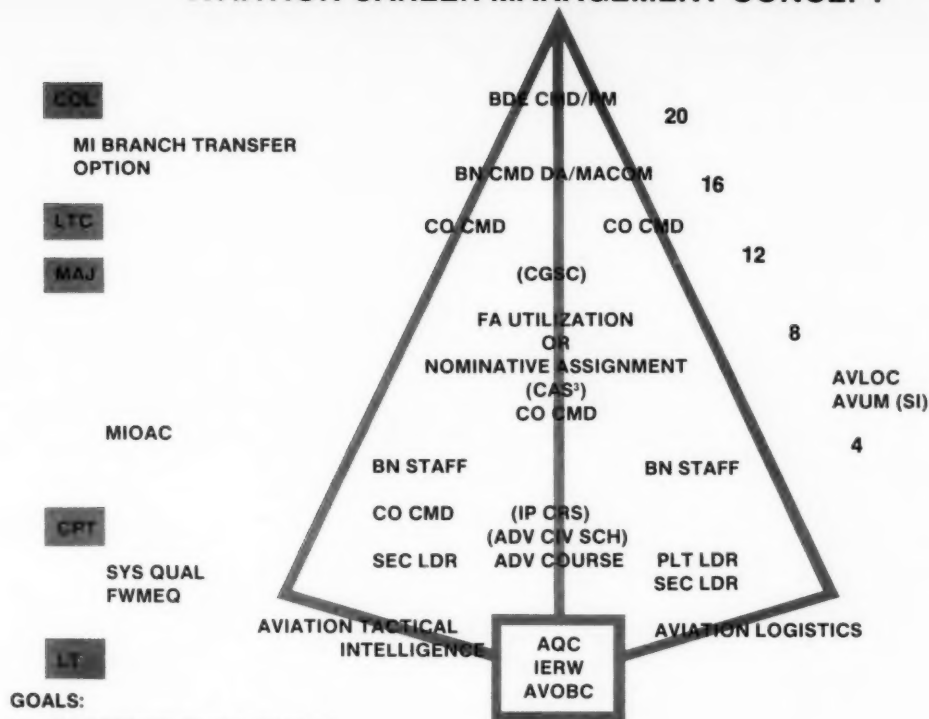3. CAREER FLEXIBILITY

Chart 2

In 1984-85, the Department of the Army reviewed the officer personnel management strategy. One of the major perceived shortfalls of OPMS I was the requirement to professionally develop each officer in two distinct branches. Although this was a valid shortfall within a majority of the U.S. Army Officer Corps, it was a major strength in the development of SEMA aviators. Dual branch proficiency produced commissioned pilots who understood both the aviation-related requirements such as maintenance and operation of aircraft, as well as the intelligence-related aspects of SEMA and CAB operations. This extremely effective cross-fertilization between the AV and MI branches provided the optimum expertise to support the CAB and maximize the collection capabilities of aerial collection platforms of the AEB which represent the best corps-level, organic intelligence capability. The final result of the officer personnel management review was the development and implementation of the Officer Personnel Management System II (OPMS II).

This new system established a requirement for one branch per officer, thereby eliminating the mechanism to develop SEMA officers equally in aviation and intelligence skills. An equally serious impact of OPMS II concerned the ideal professional development of the SEMA aviators. USAAVNC at Fort Rucker, as the proponent for U.S. Army Aviation, developed OPMS II professional development guidelines to ensure that its officers were competitive for schooling, promotion and career progression (see chart 2).

This career model is based on repetitive assignments in rotary-wing aviation units at all levels. The nature of fixed-wing SEMA systems and units created a situation in which SEMA aviators could not meet the AV branch professional development requirements. The serious impact on SEMA units and pilots was recognized in June 1985 by both USAICS and USAAVNC. Both organizations, in conjunction with the U.S. Army Military Personnel Center

GLOSSARY

AVLOC *Aviation Logistics Course*
AVOBC *Aviation Officer Basic Course*
AVUM *Aviation Unit Maintenance*
AQC *Aircraft Qualifications Course*
CAS³ *Combined Arms Services Staff School*
CGSC *Command and General Staff College*
FA *Functional Area*
FW MEQ *Fixed Wing Multi-engined Qualification Course*
IERR *Initial Entry Rotary Wing Course*
IP CRS *Instructor Pilot Course*

CAB *Combat Aviation Brigade*
COMMO *Communications*
DF *Direction Finding*
OPS *Operations*
PARPRO *Peacetime Aerial Reconnaissance Program*
PM *Program Manager*
SEMA *Special Electronic Mission Aircraft*

15C CAREER MODEL
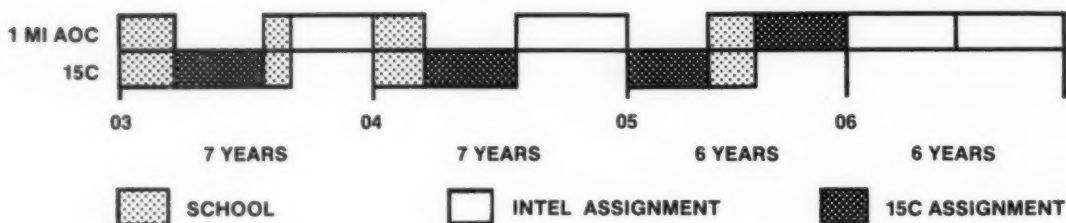
ASSIGNMENT METHODOLOGY REFLECTS ROTATION BETWEEN 15C AVIATION TOURS AND
ONE OF THE MI AOCS (OPMS II DUAL TRACKING OPTION)

Chart 3

and the Office of the Deputy Chief of Staff for Personnel joined forces to find a viable alternative.

Efforts to find a solution within the established framework of OPMS II were unsuccessful. The only viable alternative involved approval by the Army chief of staff of an exception to OPMS II policy. This exception is based on the OPMS II requirement for each combat arms officer, e.g., AV branch officers, to hold a branch and acquire a functional area. The proposed strategy formulated by USAAVNC and USAICS calls for AV branch (15) officers in area of concentration 15M, Aviation Intelligence officer, now 15C, to obtain one of three MI (35) areas of concentration as a functional area. The three available MI areas are Imagery Intelligence (35C), Tactical Intelligence (35D) and Signals Intelligence/Electronic Warfare (35G). These areas provide focused intelligence discipline training that supports the tactical intelligence requirements of the CAB and the technical requirements of the MI Battalion (AE). They will be functional areas only for aviation intelligence officers, who will then serve in aviation intelligence assignments within their specific MI area of concentration, using the dual tracking option of OPMS II (see chart 3).

The major advantage to this strategy is establishment of a mechanism to provide the aviation intelligence officer with both aviation and intelligence skills

critical to the aviation mission. These officers will be eligible and competitive within MI for promotion, schooling and command of units within their respective areas of concentration.

The Aviation branch will designate 45 officers per year group for aviation intelligence. Eight of these officers will be designated at the grade of 2nd lieutenant and receive fixed-wing and SEMA systems qualification training to meet lieutenant requirements in SEMA units. The remaining 37 officers will make a transition to aviation intelligence through attendance at the MI Officer Advanced Course where training in 35C, 35D or 35G will be acquired. Subsequently, as soon as training seats are available, these officers will receive a fixed-wing transition and SEMA qualification training. The remainder of an aviation intelligence officer's career will consist of various assignments in SEMA units and CAB intelligence sections.

The Army chief of staff approved this training strategy in May 1987. Aviation branch officers interested in aviation intelligence should contact the AV branch at MILPERCEN; Office of Personnel Systems of USAAVNC Aviation Proponency at AVN 558-4313/4307, or the Office of the Chief, Military Intelligence, USAICS at AVN 879-1181/1182 for additional details. More information concerning the selection, training and assignment process will be published by both the AV branch and MI branch.

U.S. Army Intelligence Center and School
Foreign Language Office

On December 1, 1986, the Intelligence Center and School at Fort Huachuca, Ariz., created a Foreign Language Office (UFLO) within the office of the deputy assistant commandant.

The UFLO provides the Intelligence Center and School and the MI branch with a single point of contact for coordination, oversight, contract project management, accessions, training and career matters which concern linguists.

Some of the major issues with which the UFLO is presently concerned are:

• Increasing the amount of military vocabulary and terminology taught in basic language courses.

• Army-wide foreign language requirements.

• Army linguist career progression and life cycle. The intent is to link intermediate and advanced language training to attendance at basic and advanced NCO courses. This is related to the identification of senior linguist and master linguist positions by MOS skill level currently coded in tables of organization and equipment.

• Recruiting more native linguists, either from in-service or as new accessions to the Army.

Under the program title of Interrogator Comprehensive Evaluation, a contract is currently being considered to design job proficiency language tests in the 10 highest density languages for the 97E (interrogator). These tests will aid commanders in evaluating the abilities of their linguists in job-specific performance tasks.

The U.S. Army Intelligence School, Fort Devens, Mass., is managing the further development of the voice intercept competency evaluation. This project is designed to develop testing and training media for the 98G (voice interceptor).

The Language Skill Change Project is being conducted by the Army Research Institute. The intent is to study how foreign language skills change over time and may ultimately be used to develop additional re-fresher, maintenance or enhancement programs tailored to each language-dependent MOS.

Additionally, the UFLO is presently monitoring the development of interactive videodisc project materials to be used in language enhancement or sustainment training for soldiers who hold the 97E MOS.

The UFLO coordinates and interfaces with the service program managers and other Department of the Army and Department of Defense organizations concerned with foreign language matters and the Language Proficiency Office at the Defense Language Institute.

To contact UFLO, write: Commander, USAICS, ATTN: ATSI-DA-L, Fort Huachuca, Ariz., 85613-7000, or call AVN: 879-3012/3435, or Comm. (612) 538-3012/3435.

Points of contact for other major commands are as follows:

Service Program Manager, Office of the Deputy Chief of Staff for Intelligence, Department of the Army:
DA, Washington, D.C.
ATTN: DAMI-ISI (Ms. Jeminez)
Washington, D.C. 20030-1001
AVN: 223-2037

TRADOC:
Commander, TRADOC
ATTN: ATTG-I (Lt. Col. Hardy)
Fort Monroe, Va. 23651-5000
AVN: 680-4276/4277

FORSCOM:
Commander, FORSCOM
ATTN: AFIN-LT
Fort McPherson, Ga. 30330-6000
AVN: 572-3216/3595

INSCOM:
Commander, USAINSCOM
ATTN: IAOPS-IS-TNG-L
Arlington Hall Station
Arlington, Va. 22212-5000
AVN: 286-1985/1502

DLI, Language Proponency Office:
Commandant, DLI/FLC
ATTN: ATLI-LPO
Presidio of Monterey, Calif. 93944-5006
AVN: 878-5313/5291

Writer's Award Nominee

In accordance with the guidelines for the *Military Intelligence* annual Writer's Award Program, published in the January-March 1986 issue, the magazine's editorial staff is pleased to announce that Maj. Mark W. Hays' article, "The Red Army As an Institution of Power" will be the nominee for the first quarter, 1987. Nominees will be announced each quarter; the fourth quarter's nominee and the at-large nominee will be announced with the winner in the March 1988 issue.

Enlisted Notes

The Basic Noncommissioned Officer Course

The U.S. Army Intelligence Center and School offers the following information regarding some of the material covered during training in the BNCOC held at Fort Huachuca, Ariz. This material is directed toward soldiers who hold the 97G, 96D, and 96B MOS. This is not a course outline nor is this list all-inclusive.

97G MOS Specific

TSEC Nomenclatures
TB 380-41

COMSEC Accounting Procedures
AR 380-40 (C), AR 380-5,
TB 380-41, TB 380-41-3

Cryptofacility Inspections
Same as above, plus AR 530-2

Briefing Techniques
FM 101-5, FM 34-80, FM 34-10

Introduction to OPSEC
AR 530-1, FM 34-1, FM 34-60, TRADOC Pam 525-6.

Intelligence in Terrorism Counteraction
E.O. 12333, DoD Dir 2000.12, AR 190-52, AR 381-10, CISR-07-81 (ITAC, Oct 81), ATC-CI-2630-069-81 (ITAC, Sep 81)

Soviet Radio Electronic Combat
FM 100-2 series

96D MOS Specific

From the J-TENS Manual:

National Imagery Intelligence
DIAM 58-5

Tactical Exploitation of National Capabilities (TENCAP) FM 34-2

Collection Management
FM 34-1, FM 34-2, FM 34-55

National HUMINT
DIAM 58-1, 2, 11 (Vol. I & II) and AR 381-150

Soviet IMINT Threat
DIA-DST-1430S-023-81, DIA-DST-1740S-156-80, DIA-DST-1740S-358-81

Tactical IMINT Operations
FMs 100-26, 34-1, 34-22, 30-23, 34-55, STANAGS 3377, 3596, 350-11, 350-12, TC 34-50.

96B MOS Specific

Tactical Intelligence Analysis
FM 34-3

Intelligence Reports
FM 34-3

Intelligence and Electronic Warfare
FM 34-1

Army of Excellence
FM 34-1

Soviet Threat
FM 100-2 series

Intelligence Preparation of the Battlefield
FM 34-1, FM 34-2, FM 34-3

Collection Management
FM 34-1, FM 34-2, FM 34-3

Target Development
FC 34-118

Low Intensity Conflict
FC 100-20

Radio Telephone/CEOI Procedures
FM 24-1, FM 24-18, TC 24-1

For more information regarding BNCOC please write to: Commander, USAICS, ATTN: ATSI-TI, SFC Kendle, Fort Huachuca, Ariz. 85613-7000, or call AVN: 879-5535, or comm. (602) 538-5535.

Training Notes

Technical Support Package Development

by Capt. Holly J. Harlow and Albert E. Calhoun

Since early 1980, the Intelligence Center and School has been producing Technical Support Packages (TSPs) to provide an effective means of training military intelligence units in their collective technical skills. The TSP incorporates foreign language audio tapes representing communications intelligence, electronic message traffic, video tapes of interrogations in the threat language, and related training materials into a wartime scenario to simulate the technical operating environment.

Recently the 105th MI Bn, Fort Polk, La., conducted a Russian language TSP. The program utilized 48 hours of Russian voice tapes, 48 hours of supplemental all-source intelligence, and 24 hours of Russian interrogation material.

In June 1985, the 105th MI Bn volunteered to validate the Russian TSP. The success of that training experience resulted in its implementation into quarterly training. With a constant turnover of personnel, the battalion learned that conducting the TSP quarterly provided technical training with little redundancy.

The TSP was initially run in garrison in the Technical Control and Analysis Element (TCAE) building. This environment allowed the soldiers to concentrate solely on their technical skills without the distractions associated with the field. The training was then conducted in the field as the scenario for an FTX.

When the TSP was initially conducted in the field, all players and controllers were colocated. This configuration provided some realism and facilitated control. But some deficiencies surfaced, mainly in the communications network. After discussing alternatives with soldiers and leaders, the commander

decided that to maximize the benefits of the TSP, the battalion should deploy all organic intelligence assets doctrinally. This deployment would stretch battalion communications, support personnel and support equipment, as well as challenge the soldier with the stress of a major field exercise.

It was also decided that many of the division's intelligence personnel could derive exceptional training from the TSP. The division's All-Source Intelligence Center (ASIC) and the brigade S2s sent representatives to participate in the TSP. The TCAE chief and the senior warrant officers controlled all play (The controller-intensive TSP requires a controller at each player location). All other cells located in the large compound, to include the intelligence prisoner of war (IPW) cell, were comprised of assigned personnel.

Each intercept site consisted of vehicles large enough to accommodate a suitcase recorder, operators and a controller. The suitcase recorder allowed the operator to switch between two cassette tapes which simulated his search for priority targets on a radio/receiver. The operator then passed all intelligence to the platoon operations center (POC). The intercept controller needed to be a senior linguist who could answer both language and technical questions.

Each POC consisted of an M577 command vehicle and the required analysts. The platoon leader served as the controller. He was to ensure that no critical event was missed in reports to the TCAE. The brigade S2s colocated with the POC in order to receive combat information.

Due to the classification of the TSP, the brigade S2 was required to visit the POC to obtain EW threat data to supplement the normal influx of spot reports. He also received the normal intelligence flow from the ASIC.

The Russian TSP not only improved the technical skills of the 98 CMF soldiers and 97Es but also allowed the 105th MI Bn to conduct its mission in the field. The TSP is designed to allow the commander flexibility on which area he wishes to concentrate. He may choose to conduct it in garrison with sole emphasis on technical training or to use it as the scenario for a battalion FTX. In searching for better ways to train, the 105th MI Bn has found nothing that surpasses the TSP.

With the Russian, German and Korean TSP already fielded, the Intelligence Center and School is currently producing a Latin-American package. This effort differs from previous packages since it marks the first portrayal of a low intensity conflict (LIC) and the first time that TSP will be produced in two separate and distinct versions: an English language version and a Spanish version. By producing these separate versions, this intelligence-oriented LIC scenario will be made available to a much larger audience. The production of any TSP is an extremely resource intensive effort in which the Intelligence Center and School must rely on personnel assistance from field units who have the requisite subject matter experts.

Barring unforeseen difficulties, the Latin-American TSP is expected to be delivered to the field in early FY 88. Future TSP production will include an Arabic and a multi-lingual package, incorporating several European threat languages.

For additional information regarding the 105th MI Bn TSP validation and related training program, contact: Commander, 105th MI Bn (CEWI), ATTN: S3, Fort Polk, La. 71459. For information regarding new TSP development, contact: Commander, USAICS, ATTN: ATSI-TD-UT, Fort Huachuca, Ariz. 85613-7000, or call AV 879-5271, or (602) 538-5271.

Realistic IPW Training

by CWO2 Rollie Purvis

The 105th Military Intelligence Battalion (CEWI), in cooperation with the 1st Battalion, 61st Infantry (5ID), recently conducted a realistic interrogation exercise at Fort Polk, La.

The 61st Infantry supplied approximately 100 "prisoners of war" (POW) each of the four days of the exercise. Interrogators segregated, screened and identified, interrogated and reported obtained information on preselected, unidentified prisoners before camp was liberated each day at 4 p.m. Over 350 prisoners were processed during the exercise with little or no specific doctrinal guidance on the handling of prisoners at division level.

The Army of Excellence, three-man interrogation team was tasked to quickly and decisively select the best POWs to screen and interrogate and to report the obtained information to proper staff elements. Although FM 30-15, *Intelligence Interrogation*, states, "Each detainee reports to an initial screener who questions," implying that all prisoners must be screened, the interrogation section could not screen all POW and expeditiously process intelligence information.

Through this experience, the interrogators continued to screen prisoners according to rank/duty position based on the Soviet theory that only selected ranks/duty positions will be permitted to have knowledge of military operations. This allowed interrogators to select individuals having the most intelligence information and obtain that information in the minimum amount of time. Company commanders, platoon leaders, certain radio-telephone operators, drivers and first sergeants were selected for interrogation.

The problem in directing organic efforts to either the prisoners or captured enemy documents (CED) exploitation is addressed both in FC 34-116, *Interrogation Operations* and FC 34-5, *Human Intelligence Operations*. Although neither document gives clear guidance on whether to screen and interrogate selected personnel or to exploit CED, FC 34-116 states: "AOE manning levels severely restrict the ability of organic interrogation assets to adequately exploit both targets (prisoners and CED) simultaneously." Both manuals state that if documents cannot be exploited due to volume or type, the CED should be evacuated to the next higher echelon.

The experience of the 105th MI BN IPW section proved the field circulars correct. They could not screen/interrogate prisoners and exploit CED simultaneously. Based on guidance found in FC 34-116, it was decided to scan selected CED for intelligence and concentrate on the more perishable information from the prisoners. Information misused in the scanning of CED can be obtained as soon as possible to prevent the prisoners from forgetting, changing, omitting or in any way making the information suspect or unusable.

The responsibility for POW handling is divided between many staff elements. Coordinated and efficient POW handling operations are extremely difficult. One method to attain effective POW coordination is to modify the divisional task

organization structure per guidance found in FC 34-116. This document delineates each staff element's and subelement's tasks and responsibilities concerning the effective and timely handling of prisoners.

The 105th MI BN IPW section aggressively overcame the challenges of overwhelming numbers of EPW and limited time and successfully screened, interrogated and reported the information obtained to the proper staff element.

Ground Station Module

by Sgt. Fred P. Hoffman

The 15th Military Intelligence Battalion (Aerial Exploitation), 504th MI Brigade, Fort Hood, Texas, recently acquired a new piece of equipment designed to dramatically reduce the time it takes for intelligence obtained in the air to be acted upon on the ground.

The Joint Surveillance Target Attack Radar System (JSTARS) Ground Station Module (GSM) will be used to process, store and distribute target and intelligence data derived from airborne radar imagery intelligence collectors.

While the JSTARS airborne data collection system will be installed in an E8-A (converted Boeing 707), the Army is currently testing the GSM at III Corps through the use of 15th MI Battalion personnel and OV-1D Mohawk aircraft, whose radar systems have been modified to interface with the GSM being field tested.

The AN/TSQ-132 GSM consists of general purpose processing and display equipment housed in an S-280 type shelter and mounted on a standard five-ton truck. The GSM consists of a ground data terminal, encryption and decryption devices, data processors, displays, generators, a vehicle leveling system, a 100 foot, variable-height mast antenna, a map digitizer and communications equipment. Radar data is received from the airborne sensor (carried aloft by the Mohawk aircraft) via data link. This data is processed and displayed to operators in near real-time. Two soldiers man the GSM: a search and track operator and a target surveillance supervisor. Eventually, a new MOS will be created for the GSM operator.

The operator can relate radar data on the display to selected topographical features, entered into the computer database directly from maps by using a digitizer system. Maps are taped to a digitizer board and map features are entered into the computer database by placing a digitizer cursor over the desired features. The data can be recalled at any time to show relation to displayed targets. The GSM operator can display target data as it comes in, or store it and display it at a rate faster than it was received.

Using this method, referred to as "time compression," the correlation of target traffic patterns can be better examined. A third display choice, "time integration," places multiple time frames on the display simultaneously to assist the operator in pinpointing areas with frequent activity. Pending corps G-2 approval concerning the area of interest, graphics can be input. When the Moving Target Indicators (MTIs) transmitted from the aircraft are received, the operators provide the G-2 with an eight-digit grid coordinate for the detected enemy activity.

The GSM can provide target heading, speed, azimuth and coordinates, based on the Universal Transverse Mercator system. Secure voice communications to TACFIRE and the MI brigade's All Source Production Section provide the means for relaying the GSM's data.

The GSM is currently fielded at corps level, but eventual plans call for its employment at the maneuver division level.

U. S. Army photos by Fred P. Hoffman

High Tech GSR

by 1st Lt. Brian K. Biesemeyer

Technology has continually changed the nature of land warfare throughout history. In today's Army, advanced technology is a key factor in increasing the accuracy and effectiveness of many of our weapons systems. Not to be left behind, B Company, 105th Military Intelligence Battalion (CEWI) is using today's technology to improve its ground surveillance radar (GSR) operations. Utilizing a programmable calculator, GSR operators are now able to plot target grid coordinates with increased speed and accuracy. Target grids are displayed to the operator five or six seconds after he locates the target.

In the past, GSR operators in B Company located targets on a map by one of three methods: the Surveillance Card and Plotter (SC&P), the "Whiz Wheel," or the protractor. The basic process behind all of these methods involves taking a known point (GSR site location), then using an azimuth and distance to the target from the site to obtain the target's grid coordinate. The SC&P has been the preferred (school recognized) method. It allows the operator to place all pertinent information directly on the SC&P. Grid coordinates for any target within the radar's sector of scan can be located relatively quickly. The disadvantage of the SC&P is its awkward size and semi-permeable nature of its construction material. Its size makes it cumbersome for use in a fully loaded M113. The material from which it is made also has a tendency to absorb grease pencil markings that cannot be erased completely. This causes the SC&P to become quite cluttered after several uses.

The "Whiz Wheel" is the most preferred manual plotting method used by GSR operators in B Company. It is faster and less cumbersome than the SC&P, but cannot be used effectively with targets closer than 2,700 meters, due to the physical radius of the wheel. This limitation leads some GSR operators to use a protractor and straight edge for targets within close areas of coverage (within 2,700 meters). At Fort Polk, this type of range is typical. The protractor method is very versatile but slowest of all plotting methods. Consequently, these methods can be plagued with inaccuracy if anything but a fine tipped marker is used in plotting. After extended use, the finest points enlarge and a distortion in accuracy occurs. I have seen GSR operators use grease pencils, for lack of a better marker, and not be able to plot a target more accurately than plus or minus 300 meters.

As a GSR platoon leader, I watched teams struggle with these methods to facilitate efficiency. I therefore attempted to program a calculator to determine the target location using the site location, azimuth and range to the target. After some review of trigonometry and basic programming, I was able to create a program that would store in memory the site location (eight-digit grid coordinate), and when given an azimuth (in mils) and range (in meters), the program would display to the operator the six-digit grid coordinate of the target. The program will give a grid coordinate to the GSR operator in five or six seconds. This immediate responsiveness is consistently accurate, and can locate targets up to five times faster than the most proficient operators.

The calculator (a Hewlett-Packard model HP-15C) and program were recently tested at the National Training Center (NTC) in June 1986. The advantages of the system proved invaluable. With opposing forces advancing in multiple formations at speeds up to 350 meters per minute, seconds saved can mean the difference between victory and defeat.

In summary, this programmed calculator has the following advantages over conventional plotting methods.

- Increased speed
- Precision accuracy
- Compact, easily handled

A Hewlett-Packard HP-15C or HP-11C is recommended due to its compact nature, long life batteries, and continuous memory.

Technology has an ever increasing role in the Army. In the past two years, the introduction of the AN/PPS-5B radar mount for M113s and this programmed calculator, coupled with six rotations to NTC in 19 months, have helped to make B Company's radar teams the most efficient and combat ready in the Army.

Operation

At new site:

1. Press - GTO CHS 000
2. Enter - First four digits of GSR site
3. Press - R/S
4. Enter - Second four digits of GSR site
5. Press - R/S
6. Enter - Azimuth to target (mils)
7. Press - R/S
8. Enter - Range to target (meters)
9. Press - R/S
10. Calculator displays target grid in six-digit grid format. Decimal point should be ignored. Calculator can be turned off and on for a later target. After first target at the site, operators need only perform steps 6 - 10.

The exact program can be obtained by writing: 1st Lt. Brian K. Biesemeyer, HHC, 3-70 AR BN, Fort Polk, La. 71459-5000, or by calling AVN 863-4520, or comm. (318) 535-4520.
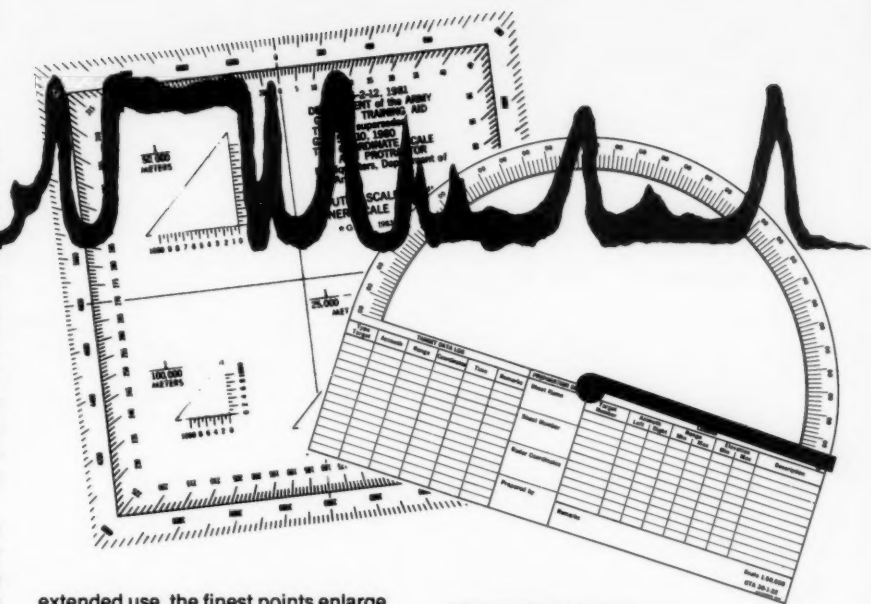
PROFESSIONAL READER

The Red Army Order of Battle in the Great Patriotic War by Albert Z. Conner and Robert G. Poirer, Novato, Calif.: Presidio Press, 1985, 408 pages, $22.50.

Tracing the lineage of Soviet army units can be a maddening experience. The scope of such an undertaking can be better understood by citing a few statistics. During World War II the Soviet Union fielded nearly 500 rifle divisions, most of which were organized into 135 rifle corps. There were 70 numbered armies known to have existed at one time or another, not a few of which were renamed after either being destroyed in battle or honored with the Guards designation. This does not take into account the several tank, reserve, shock and engineer armies which were created during the war. Finding the correct information about one particular unit in the few reliable works available in English on Soviet military history can be likened to the proverbial search for the needle in a haystack.

The Red Army Order of Battle in the Great Patriotic War helps ease the frustration associated with researching Soviet unit histories. The authors, both of whom work for the National Photographic Interpretation Center, combined information from Allied and German order of battle reports with data from Soviet historical publications to produce a usable guide to the history of Red Army units.

The book is divided into seven chapters which cover the armies, corps and divisions activated by the Soviet Union during the Great Patriotic War. Information on units formed prior to the war has also been incorporated. Each entry on a specific unit includes data on where and when the unit was formed, what campaigns it took part in, and what units were subordinate to it. Needless to say, not every entry was quite so complete. But this should not detract from the book's main contribution as the first ready reference on Soviet army units of World War II.

The only major weakness of this book, one that is readily admitted to by its authors, is the lack of footnotes. These were omitted intentionally; to do otherwise would have doubled the size of the book. Instead, the authors have opted for an occasional reference to a source, such as the Soviet **Military History Journal**. In spite of this shortcoming, **The Red Army Order of Battle** will stand as a valuable reference work in the field of Soviet military history. This book is highly recommended for historians, military analysts and anyone wanting to know more about Soviet unit histories.

Capt. Robert E. Kells, Jr.
174th MI Company
Fort Monmouth, N.J.

Sword & Shield: Soviet Intelligence and Security Apparatus by Jeffrey T. Richelson, Cambridge, Mass.: Ballinger Publishing Co., 1986, 279 pages, $16.95.

The Soviet Union maintains the world's last great imperial empire. Extending from the River Elbe to the Pacific Ocean and from Afghanistan to the Arctic Ocean, the primary tool used by the Soviet state to control this vast empire is its enormous intelligence and security apparatus.

During the last decade, a number of fine studies have been produced regarding the Soviet intelligence establishment. Through detailed analysis of Soviet intelligence collection capability and an examination of the relationships within the Soviet national security decision-making structure, the author, an assistant professor of government at American Univ., has made a unique contribution.

In contrast to more than two dozen specific, intelligence organizations that the United States relies upon, the Soviet Union has but two: the *Komitet Gosudarstvennoy Bezopasnosti* (KGB) (Committee for State Security), and the *Glavnoye Razvedyvatelnoye Upravleniye* (GRU) (Intelligence Directorate of the General Staff). These two organizations perform all the services carried out by the U.S. intelligence community. For example, the KGB's Border Guard Directorate, assigned the task of protecting the frontiers and preventing smuggling, is equivalent to the combined efforts of the U.S. Border Patrol, Coast Guard and the Customs Service. Both the KGB and the GRU are quantitatively immense organizations, not simply because of their designated missions but also because of the enormous importance given to the security apparatus by the state.

Richelson's overview of the Soviet national security structure is especially significant when he discusses the probable decision-making relationship in existence. The Soviet leadership establishment operates under the guise of democratic centralism. This system dictates that all power flows down from the top. Thus, the Politburo and the Defense Council, that sit at the apex of the structure, make or approve the most significant decisions directing the Soviet intelligence apparatus. It is interesting to note that the author formally included the Defense Council into the security structure.

Previously, due to a lack of information, Western analysts have been forced to contend with the significance of this council in a cursory manner. This body, a *de facto* committee for defense, is most likely responsible for the resolution of major national security questions and for the coordination of the state apparatus. Thus, military interests are considered in all decisions of the state administration. The author notes that Western analysts now believe that the Defense Council may be the supreme defense decision-making authority and, as such, is predominant over the Politburo concerning national security matters.

While the national security apparatus is responsible for directing and guiding the Soviet intelligence community, the KGB and GRU directly control all state intelligence collection assets. The author's description of the Soviet collection capabilities, especially in the realm of technical resources, is possibly the most complete currently available in unclassified text. Not only are the technical capabilities of Soviet imagery and SIGINT/ELINT satellite systems detailed, but their use against specific American operational targets is also described. Most recently, during the October 1983 Grenada invasion, two Soviet imaging satellites were maneuvered to achieve maximum photo capability. In 1984, the Soviets began to employ their fifth-generation imagery satellite.

Jeffrey Richelson's work provides an exceptional assessment of the Soviet intelligence and security apparatus. The information on collection systems alone is invaluable. This data, in correlation with its relationship to the Soviet security decision-making structure, has provided a unique contribution to open source literature. For the intelligence professional, this work provides a superb data base and framework for further analysis of the Soviet intelligence structure.

Maj. Alan G. Stolberg
U.S. Army Russian Institute

The Shadow War: German Espionage and United States Counterespionage in Latin America during World War II by Leslie B. Rout, Jr. and John F. Bratzel, Frederick, Maryland: University Publications of America, 1986.

To those who would know the shadow world of spies, sabotage and subterranean diplomacy, 40 years is a vital time lapse. Statutorily, the highest secrets of state become public province, and geriatrically, the gumshoe actors who made them are often available to reminisce.

Meticulously, the authors lay out the organization and functions of Nazi Germany's two master spy systems. The government's official apparatus was the **Abwehr**, directed by Adm. Wilhelm Franz Canaris, but there was a rival, overlapping spy system, the **Ausland Amt VI** of the SD, directed by the infamous SS Lt. Gen. Reinhard Heydrich.

The Roosevelt administration was slow to respond to the notion that German spies posed a credible military threat in Latin America, but British MI-6 pushed this theme. The Departments of State, Army and Navy then opted to collect intelligence in their respective fields through the time honored system of ambassadors and attaches, but FBI Director J. Edgar Hoover persuaded President Franklin D. Roosevelt that the German sabotage threat was serious. He maneuvered the president into a telephonic approval of expanding FBI operations into all of Latin America, institutionalizing his new organization as the Special Intelligence Service (SIS). Gen. William Donovan's flashier Office of Strategic Services (OSS) was barred from Western Hemispheric operations by White House fiat.

Professors Rout and Bratzel tell the story of Germany's effort to subvert the governments of Mexico, Brazil, Chile and Argentina, mostly through the **Abwehr**, while simultaneously collecting and transmitting data on military movements and strategic shipments of raw material from Latin America to Europe. Mexico, which had recently expropriated all U.S. petroleum enterprises, briefly supplied crude oil to Germany, then swung solidly against the Nazi cause and even sent a military aircraft squadron to fight against the Japanese forces occupying the Philippines.

Brazil was persuaded to evict Italy's LATI airline, a major pipeline for German spy activities, through a classic disinformation campaign of British origin. Brazil, too, then swung solidly toward the Allies, sending an infantry brigade to battle the Axis in Italy. German operations in Chile were a disaster; Hitler and his advisors had misunderstood Chilean military admiration for German military excellence.

Argentina was the German big effort, for many saw the incipient Peronist movement as a repeat performance of Franco's Falange in Spain. Indeed, Franco's Military Intelligence Service meddled significantly on behalf of German interests in Latin America. But Argentine leaders, especially Peron, saw clearly by 1943 that the Allies were going to win the war. So, for reasons more pragmatic and

nationalistic than ideological, the Argentine government, too, cooperated with U.S. and British authorities in rounding up the German spy apparatus.

Abwehr did a lot, from 1939 to 1943, with only a few hundred operatives, but the same kind of rivalry also marred the effectiveness of U.S. counterintelligence operations. Nazi Germany demonstrated that a few hundred skilled espionage and dirty tricks specialists, linked up with sympathetic political elements in the target country, can do great damage to a nation's war effort.

Rout and Bratzel offer easily read charts and tables to explain the tedious organizational details of their subject. The style of writing melds a bit of spy story derring-do with traditional social science analysis, and the reader is compelled to keep turning the pages. The research techniques, especially the comparison of recently available government documents with interviews of surviving spies and officials, bring much previously unknown history to light.

The authors do not suggest it, but one ponders: What might Mexico, Brazil, Chile and Argentina have done in 1943, had Germany won the Battle of the Kasserine Pass in North Africa, and the Battle of Stalingrad? Would Axis victories on the battlefield have given Falangist and other rightwing political elements the encouragement they needed to add the southern half of South America to the Axis? If this possibility had come into existence, **Abwehr** might have been called upon to help "Nazify" the new governments, and the war would have had a very different ending.

Russell W. Ramsey, Ph.D.
Albany, Ga.

History of the Military Intelligence Division, Department of the Army General Staff 1775-1941 by Bruce W. Bidwell, Col., USA (Ret), Frederick, Md.: University Publications of America, 1986.

Col. Bidwell's study, first used in the intelligence education of general officers and key personnel in the early 1950s, has been reprinted as a portion of University Publication's **Foreign Intelligence Book Series**. The original study was classified TOP SECRET and the declassified version is a testament to the author's thoroughness in research and genuine interest in the subject matter.

The book is a "survey course" in military intelligence concepts covering the American Revolution through the Pearl Harbor attack. Bidwell starts with the revolutionary aspects of information gathering/scouting. The actual use of military information gathering begins after the revolution when Maj. William McRee and Capt. Sylvanus Thayer were sent to Europe as the first Americans to perform as military observers. Their letters, dated April 20, 1815, stated; "The President is pleased to afford you the opportunity for professional improvement...report your observations of military schools, work shops and arsenals...and fortifications, especially those for maritime defense."

The Mexican War introduced intelligence and security screening missions through the activities of the "Mexican Scout Company" but the American Civil War produced intelligence activities on a larger scale than previously seen. Col. George H. Sharpe is credited with organizing various collection means to carry out assigned intelligence missions and also organized a headquarters staff

group which functioned as a centralized intelligence agency in the field. The first recorded use of ciphers, air observers and psychological warfare was seen during this war.

The book marks the year 1885 as the official start date for a departmental intelligence agency when the Division of Military Information in the AG Department was charged with "the collection and classification of military information of our own and foreign countries, especially with respect to armed, reserved and available strength...the manufacture of arms, ammunition and other war material." The first area study was produced in 1893 by Capt. George P. Scriven and was of great help in the Spanish-American War. The Military Reform movement of 1902-1904 saw the agency retitled the Military Information Division and was linked to the fledgling Army War College.

A highlight of Bidwell's text is the treatment of the intelligence activities that were reprised and expanded later during World War II. An interesting side note was that much of our organization and activities were learned through close liaison with the British, a liaison that continued after the war and set the scene for the birth of the American OSS in World War II. In this way, the book gives official credence to the books published about OSS and SOE since the end of World War II.

World War I saw the advent of terms such as "intelligence" itself (a replacement for the term information), positive and negative intelligence and counterintelligence, as well as the beginnings of electronic warfare with the birth of the American Radio Intelligence service. The text also describes the American involvement with the Allied expeditions into North Russia and Siberia after the armistice, an area rarely addressed.

During the post World War I period, intelligence activities faded in number but climbed in quality and helped set the stage for the World War II era. For example, the Bulletin of Foreign Military Notes examined developments in weapon systems and equipment used in modern European countries.

It was interesting to read of the exchange during the 1930s of military officers attending the German War academies with those visiting the United States. There is also a candid treatment of Col. Charles Lindberg's controversial visits to Germany which were integral to the collection by MID on the Luftwaffe and for which Lindberg was criticized at the time.

The section dealing with Pearl Harbor, though

interesting, is limited because of the lack of information at the time of writing. However, it does mention the early Allied cryptological efforts at breaking the Japanese "Purple" code, and even alludes to ULTRA.

This book is of great value in putting intelligence in its proper place in our country's history.

In summary, as the author states, "Before World War II, there was an observable lack of understanding within the United States government of the basic principle that a full-scale military intelligence effort should constitute an essential part of the national defense policy during peace as well as war."

Capt. Richard Ugino
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Ardennes: The Secret War by Charles Whiting, New York: Stein and Day, 1985, 220 pages.

At 5:30 a.m. on December 16, 1944, the German Army launched an offensive in the Ardennes "Ghost Front" that achieved complete tactical and strategic surprise and nearly split the Allies in what has come to be known as the "Battle of the Bulge." In the end, the Allies turned the tide but suffered 78,000 killed, wounded, captured or missing (including 10,000 soldiers of the U.S. 106th Infantry Division who surrendered within 24 hours of being cut off by the Germans) in an intelligence scandal equal to that of the 1941 attack on Pearl Harbor and the 1983 destruction of the Marine garrison in Beirut.

Although numerous books and movies have exhaustively described the conventional aspects of the Battle of the Bulge, this particular novel provides an excellent outline of the causes of the intelligence debacle and competently details the scope and effect of German special operations in support of the offensive.

Whiting describes the pervasive complacency on the Allied side of the line in the fall and early winter of 1944. Based on the deeply-held belief that Germany was a defeated nation incapable of major offensive operations, and the hope that Allied troops might be home for Christmas, U.S. tactical and strategic intelligence atrophied. Included in Whiting's description are numerous anecdotes of instructive value to contemporary intelligence soldiers. Foremost, there was overreliance on technical Enigma intelligence: The Germans did not use Enigma channels in preparing the offensive. U.S. line commanders from company to division level operated on a "9 to 5" basis and disregarded tactical intelligence collection against the enemy opposite their positions: At night the Germans conducted aggressive and generally unhindered patrolling behind American lines, including one patrol that successfully stole an intact Sherman tank. Key Allied leaders went on leave on the eve of the German breakthrough: The Germans were aided in the early hours of their attack by significantly weakened Allied command and control. In the end, Allied intelligence prior to the attack completely failed to detect 600,000 enemy troops massed in two tank armies practically under their noses.

Of equal or greater interest is Whiting's description of the rapid organization and execution of German special operations. Coverage is given to Dr. Karl Recknagel's covert weather teams operating north of the Arctic Circle to give the Germans advance weather forecasting. The last unit of the German military to surrender to the Allies was one of these teams, finally surrendering nearly four

months after Germany capitulated. The author also gives substantial attention to Abwehr Col. Herman Giskes' artful and efficient campaign of true flag and false flag espionage and disinformation, including the use of refugees and communist sympathizers, which worked in tandem with other elements of German intelligence to completely fool Allied intelligence as to German intentions. Whiting also describes the desperate paratroop commandos, and the devastating pseudo-operations of SS Col. Otto Skorzeny's Panzerbrigade 150 and Stielau Unit (consisting of English-speaking Germans disguised as Americans and used for long and short range reconnaissance, sabotage, spreading confusion and combat assaults).

Whiting's book is a valuable addition to the libraries of enthusiasts of military intelligence or special operations, containing valuable lessons by example in tactical and strategic operations security, deception and the use of special operations, in support of combined-arms offensives. It also contains interesting tangents, such as a description of the OSS schemes to blind Hitler and Mussolini with poison gas and to put female sex hormones in Hitler's garden-grown vegetables. Overall, it also provides food for thought as to the role of U.S. or Soviet special operations forces in the AirLand Battle.

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Israel's Global Reach: Arms Sales as Diplomacy by Aaron S. Klieman, Washington: Pergamon-Brassey's, 1985, 240 pages.

Klieman's study examines how and why the Israelis became involved in arms trafficking and their roles with other nations.

Klieman, an associate of the Jaffei Center for Strategic Studies, teaches international relations at Tel Aviv Univ. Despite being an Israeli who's been involved in strategic issues, he is dependent upon the varied overseas sources of Israeli information - the U.S. Arms Control and Disarmament Agency, the Stockholm International Peace Research Institute, and the International Institute for Strategic Studies of London. In Israel's Global Reach, the author attempts to provide an explanation of Israeli arms sales.

Klieman estimates Israeli sales are beyond the one billion dollar mark and constitute about one quarter of the 1984-85 industrial exports. Israel sees arms sales as a way to recover monies on obsolete equipment and surplus stockpiles, delve into more sophisticated systems, cease dependency on unsure sources of supply, keep weapon components "in the pipeline" for regular and predictable patterns of acquisition and as an "important substitute for the overt political presence generally sought by the more prominent international actors."

Klieman pays particular attention to the role arms sales plays in foreign policy. Arms sales is an opening wedge for expanded trade. It is also a way Israel can relate to many countries that possess sizeable Jewish presence in their own population. Most importantly, "Israel's program thus falls within the larger context of an effective security framework for the Free World, led by the United States, and answers the call of the American administration for greater contributions from allied and friendly countries able to render different forms of such assurance." For instance, Israel can help meet Taiwan's needs so Beijing doesn't get angry with the United States.

The author arrays quite a benefit value to the arms sales policies though he does point out that it hasn't always worked. It doesn't always buy influence; Israeli sales to India did not achieve a goal of greater contact. It doesn't always bring prestige since liberal circles are always condemning Israel for the practice. And, some contacts are questionable, for example, sales to dictators. While it has made contributions to trade in general, the author points out, in some instances you don't always get paid nor does trade logically follow. Finally, it doesn't always buy you friends — in 1973, 18 African consumers of Israeli military goods voted against Israel. The 18 also became more friendly with hostile Muslim nations. Klieman also points out that instead of assisting the West in its goals, Israel can also be viewed as competition and it certainly allows for hostile rumors about what the Israelis are doing.

The latter portion of Israel's Global Reach examines how policies are believed to be set and reviewed. Concern is expressed about the growing dependence on arms manufacturing within the context of Israel's shaky economy, lack of apparent coordination, rise of special interests and the need for alternatives.

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Combat Support in Korea by John G. Westover, Washington, D.C., Center of Military History, U.S. Army, 1987, 254 pages.

This book, first published in 1955 by the Combat Forces Press, originated from a series of interviews conducted at the small unit level with American soldiers who experienced combat in the Korean War. Combat Support in Korea grew from the conviction of Maj. Gen. Orlando Ward, chief of military history (1949-1952), that the U.S. Army needed a record of its small unit service operations.

Capt. John G. Westover's resulting collection of interviews with soldiers of support branches provides a unique focus on tactical support operations during the Korean War from an oral history perspective. This allows the reader to wear those boots and experience the hazards, frustrations and challenges of combat. As a collection of personal accounts and unit experiences, this book is commendably simple and accurate. As a collection of lessons learned in combat, the book is timeless.

Westover organized his interviews primarily by corps. He starts first with the Corps of Engineers and ends with the Quartermaster Corps. These two pillars of combat support operations encompass other interviews by soldiers from the Transportation, Chemical, Signal, Medical and Ordnance Corps. The interviews chosen are short and concise. No interview generally lasts more than three or four pages. Thus, as the reader progresses through the book, he is continually confronted with new stories, each unique in its own way. The interviews present the reader with not only a flavor of combat support operations in Korea, but with a series of how to get missions accomplished by the small unit leaders. Lessons from the book's interviews to be used today include the major problems of communications on the Korean Peninsula.

The Army doctrine of the 1950s taught that wire was the primary method of communication. Distance, speed, terrain and the lack of good road networks limited the use of wire. Very high frequency (VHF) radio communications were found to be more practical and reliable once line-of-sight challenges were overcome. Westover's interviews also explain how helicopter evacuation in Korea initially evolved from evacuating wounded personnel from mountainous positions to eventually being used to speed evacuation over lengthened routes. Other interviews address how this use of helicopters, coupled with the establishment of Mobile Army Surgical Hospitals (MASH), significantly helped maintain high morale.

The interviews bring home the reality and toughness of combat. Interviews with Chemical Corps personnel illustrate how the unpredictability of the winds and the mountainous terrain of Korea prevented successful smoke operations and made close support of ground troops impossible. Other Chemical Corps interviewees state how successful the use of napalm was against enemy troops and tanks. Interviews with soldiers from the Engineer Corps relate how the shrewd use of antipersonnel and antitank mines forced the canalization of enemy troops into well defended areas and how the engineers used the Soviet chevron pattern in mine laying to maximize efficiency and deceive the North Korean soldiers.

As readers progress through the book, the interviews paint a detailed portrait of small unit combat support operations in Korea. While it was the combat arms soldier who bore the brunt of close and continuous combat with the North Korean and Chinese soldiers, it was the combat support soldier who provided the much needed materiel support.

Combat Support in Korea supplies illustrations of the successes and failures of combat support operations during the Korean War. It is a basic glance at support operations from the grass roots level: simple and uncomplicated by the complex intricacies of the operational perspective of the Korean War.

Combat Support in Korea should be read in conjunction with a basic historical primer in the general history of the Korean War. This would allow the reader to place a specific interview in the proper context of time and situation. However, lack of basic understanding of the Korean War by a reader does not render Combat Support in Korea useless. The book is what it was set out to be—an oral record of small unit support operations in the Korean War.

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The black and gold Heraldic Rose, alluding to the insignia of the Military Intelligence branch, is symbolic of the basic mission to collect, check and make available any information about a present or possible future enemy. Its position at the top of the design is relative to the unit's motto, "Mission First." The Phoenix bird (a gold eagle), rising out of a burst of red flames is symbolic of the city of Atlanta, Ga., the original location of the unit headquarters. The seven Southeastern states, where the unit first operated, are represented by the ring of seven, five-pointed blue stars.

111th Military Intelligence Brigade

The 111th was constituted on May 10, 1946, as the 111th Counterintelligence Corps Detachment, and was activated on May 22, 1946, at Atlanta, Ga. On October 6, 1950, the detachment was allotted to the regular Army. It was redesignated three times during the next 16 years, becoming the 111th Counterintelligence Group in October 1966. The unit was inactivated at Fort McPherson, Ga. on January 9, 1973.

The 1st School Brigade, which provided command and control for the 2,000 soldiers as-signed to the U.S. Army Intelligence Center and School since 1973, was redesignated the 111th Military Intelligence Brigade (training) on March 17, 1987, at Fort Huachuca, Ariz. The 111th MI Brigade has historically been a CONUS-based, counterintelligence organization; however, in its new role in the training arena, it houses permanent party personnel, training directorates, departments, students and command and staff elements.

Today, the 111th MI Brigade consists of two training and support battalions. The brigade provides general administration and logistical support for all personnel attending USAICS courses. These include the Military Intelligence Officer Basic and Advanced courses, Warrant Officer and Aviation courses, Noncommissioned Officer courses, basic enlisted courses and other intelligence related courses. The 111th MI Brigade is one of the critical elements which allow the U.S. Army Intelligence Center and School to provide our branch with "Soldiers First, MI Professionals Second to None."